

The Gun Digest®  
Book of

# FIREARMS ASSEMBLY/DISASSEMBLY

**Part V: Shotguns**  
**Second Edition**

By J. B. Wood

The background of the cover is a green grid pattern. Three shotguns are arranged diagonally across the frame. The top shotgun is a pump-action model with a dark barrel and a wooden stock. The middle shotgun is a semi-automatic model with a dark barrel and a wooden stock. The bottom shotgun is a pump-action model with a dark barrel and a wooden stock. A wooden stock is also visible in the upper right corner.

■ **COMPLETE  
TAKEDOWN  
INSTRUCTIONS  
FOR 59 POPULAR  
SHOTGUNS—PLUS  
OVER 285 VARIANTS**

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Part V: Shotguns  
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The background of the cover is a green grid pattern. Three shotguns are displayed diagonally across the frame. The top shotgun is a pump-action model with a dark barrel and a reddish-brown wooden stock. The middle shotgun is a semi-automatic model with a similar wood stock. The bottom shotgun is another pump-action model, also with a wood stock. The barrels of the shotguns are dark, possibly black or dark blue.

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## **Editorial Comments and Suggestions**

We're always looking for feedback on our books. Please let us know what you like about this edition. If you have suggestions for articles you'd like to see in future editions, please contact.

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# Introduction

As a general rule, the average shotgunner is likely to know more about simple takedown than most other shooters. In modern semi-auto and slide-action guns, especially, several extra barrels in different lengths and choke degrees may be kept on hand and changed frequently. Because of the sometimes-inclement weather conditions in which it is used, the hunter's shotgun will often need to be taken completely apart, dried and cleaned. Besides the effects of rain, snow, or dust, there are always a few cases of the gun being inadvertently dropped over the side of a

boat.

When the non-gunsmith is faced with the necessity of total takedown, the original instruction sheet or booklet supplied with the gun can be of some help, if he has it. Most of these, though, go only as far as field-stripping. Also, for some of the older guns, these booklets are scarce and valuable collector items, not usually available to the average gun owner. Some of the foreign manuals are direct translations, and are sometimes more amusing than helpful. So, this series of books is designed to help, with clear instructions for complete takedown and reassembly. The first four volumes have covered pistols, revolvers, rimfire rifles, and

centerfire rifles, in that order. A sixth volume covered law enforcement weapons.

Some points in complete disassembly and reassembly may require the special tools and skills of a gunsmith. It can usually be managed by a very knowledgeable amateur, but there must be some mechanical aptitude. Since this book is intended for both the amateur and the professional, even the simpler operations are often described and shown in detail.

In some cases, the tools needed are not available at an ordinary store, so a section on tools is included, along with the sources for each tool or set of tools.

A few general rules can be applied to the takedown of any gun: A nylon or plastic mallet may sometimes be used to tap a tight assembly free, but no extreme force should be used. Wear safety glasses at all times to protect the eyes from springs and spring-propelled parts. Avoid taking a gun apart in circumstances where small parts are likely to be lost. Finally, read the instructions through at least once, before you start.

My readers, I assume, are intelligent, and would not try to dismantle a loaded gun. So, I won't begin each set of instruction with the standard warning. However, since anyone can have a

momentary lapse, I'll say it once: ***Before starting the takedown of any gun, be sure it is entirely unloaded.*** Don't rely on the feed and ejector systems -look inside and make certain. In some tube-magazine types, a round can "hide."

An important addition to the back of this book is a comprehensive index and cross-reference list, linking all of the shotguns covered here to guns of similar or identical pattern. When these are included in the count, the instructions in this revised edition can be used for the takedown and reassembly of hundreds of shotguns.

J. B. Wood  
Raintree House



Corydon, Kentucky  
April, 2002

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## **A Note on Reassembly**

**Most of the shotguns covered in this book can be reassembled by simply reversing the order of disassembly, carefully replacing the parts in the same manner they were removed. In a few instances, special instructions are required, and these are listed with each gun under "Reassembly Tips." In certain cases,**

**reassembly photos are also provided.**

**If there are no special instructions or photos with a particular gun, you may assume that it can just be reassembled in reverse order. During disassembly, note the relationship of all parts and springs, and lay them out on the workbench in the order they were removed. By following this procedure you should have no difficulty.**

# **The Gun Digest<sup>®</sup> Book of Firearms Assembly/Disassembly Part V: Shotguns, 2nd Edition**

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**This book is dedicated to my  
father, James W. Wood.**

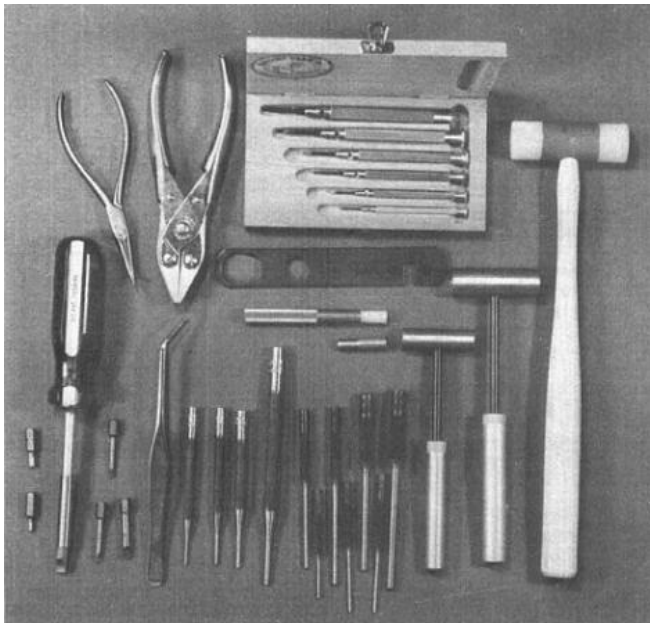
# Acknowledgements

My thanks to these people, who helped to make this book possible:

John S. Yarger, John A. Yarger, James W. Yarger, and Larry McClarney of Lock & Load Gun Shop; Dr. Kenneth Eblen, Al Paulsen, Brian Paulsen, Donald L. Harrison, Kenny B. Woods,

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# Tools



Countless firearms, old and new, bear the marks, burrs, and gouges that are the result of using the wrong tools for taking them

apart. In the interest of preventing this sort of thing, I am including here a group of tools that are the best types for the disassembly of shotguns. Except for the few shop-made tools for special purposes, all of those shown here are available from one of these sources.

**Brownells Inc.**  
**Route 2, Box 1,**  
**200 S. Front St.**  
**Montezuma, Iowa 50171**

**B-Square Company**  
**P.O. Box 11281**  
**Fort Worth, Texas 76109**



# General Instructions:

**Screwdrivers:** Always be sure the blade of the screwdriver exactly fits the slot in the screw head, both in thickness and in width. If you don't have one that fits, grind or file the tip until it does. You may ruin a few screwdrivers, but better them than the screws on a fine shotgun.

**Slave pins:** There are several references in this book to slave pins, and some non-gunsmith readers may not be familiar with the term. A slave pin is

simply a short length of rod stock (in some cases, a section of a nail will do) which is used to keep two parts, or a part and a spring, together during reassembly. The slave pin must be slightly smaller in diameter than the hole in the part, so it will push out easily as the original pin is driven in to retain the part. When making a slave pin, its length should be slightly less than the width of the part in which it is being used, and the ends of the pin should be rounded or beveled.

**Sights:** Nearly all dovetail-mounted sights are drifted out toward the right, using a nylon, aluminum, or brass drift

punch.



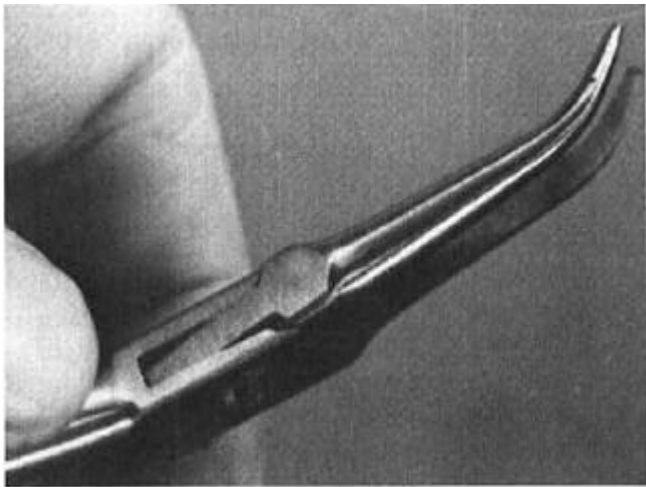
1. The tiniest of these fine German instrument screw drivers from Brownells is too small for

most gun work, but you'll see the rest of them used frequently throughout the book. There are many tight places where these will come in handy.

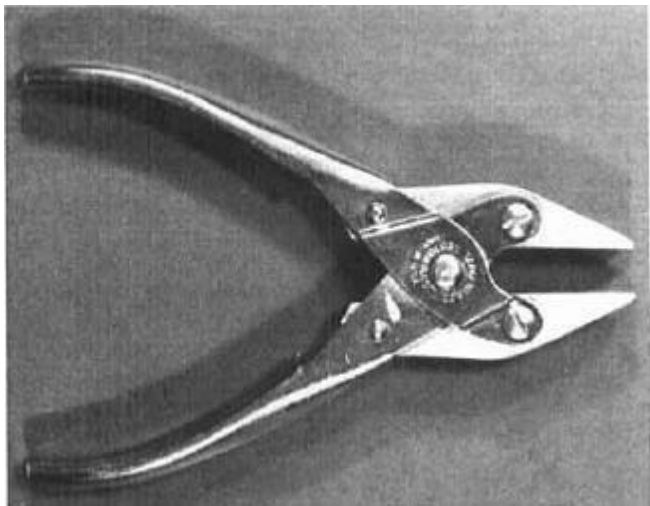


**2.** When a larger screwdriver is needed, this set from

Brownells covers a wide range of blade sizes and also has Phillips- and Allen-type inserts. The tips are held in place by a strong magnet, yet are easily changed. These tips are very hard. With enough force you might manage to break one, but they'll never bend.

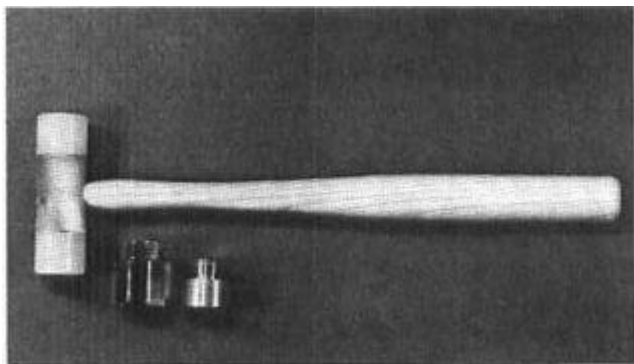


3. You should have at least one good pair of bent sharp-nosed pliers. These, from Brownells, have a box joint and smooth inner faces to help prevent marring.



4. For heavier gripping, these Bernard parallel-jaw pliers from Brownells have smooth-faced jaw-pieces of unhardened steel to prevent

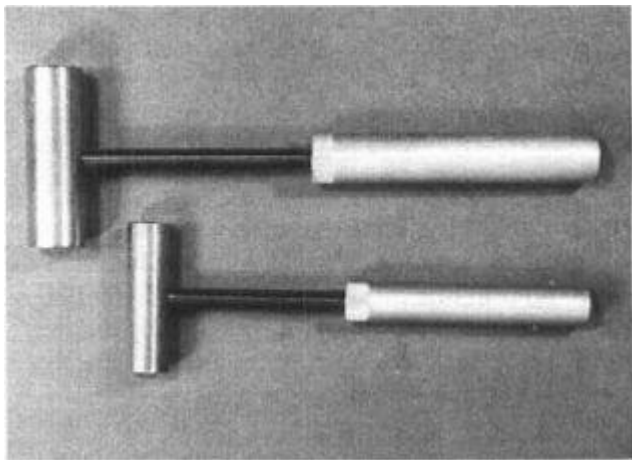
marring of parts.



5. For situations where a non-marring rap is needed, this hammer from Brownells is ideal. It is shown with nylon faces on the head, but other faces of plastic and brass are also available. All are easily

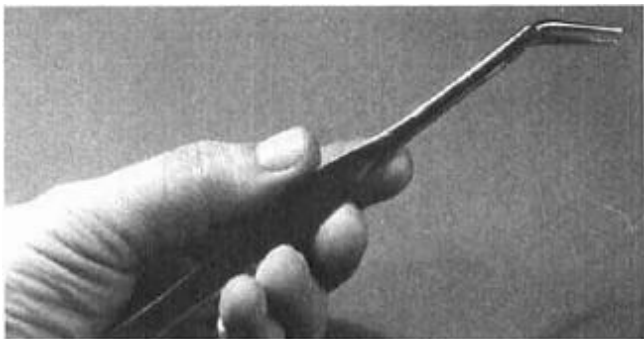


replaceable.



6. For drifting out pins, these small all-metal hammers from B-Square are the best I've seen. Two sizes (weights) are available and they're well

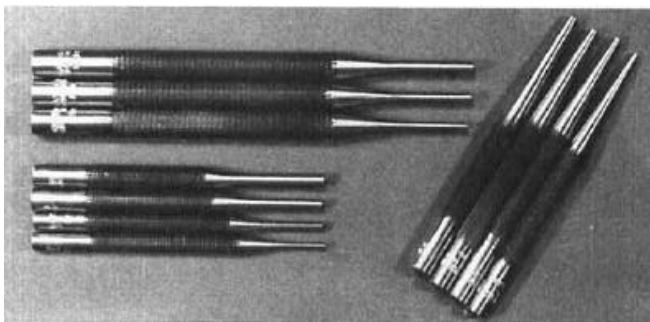
worth the modest cost.



7. For situations where reach and accessibility are beyond the capabilities of sharp-nosed pliers, a pair of large sharp-nosed forceps (tweezers) will be invaluable.

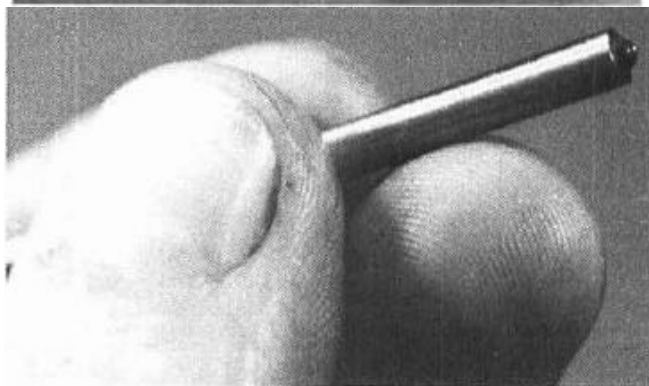
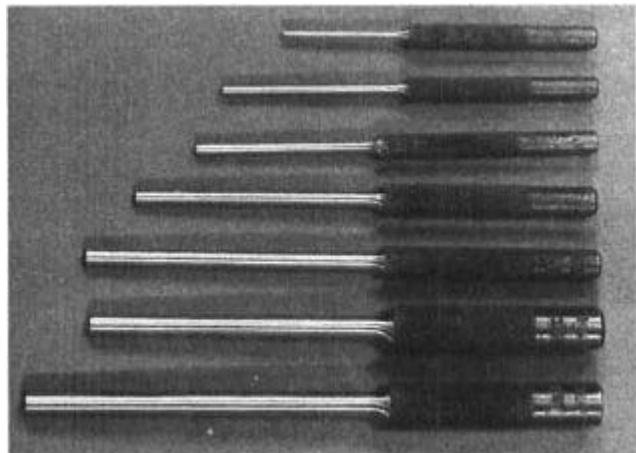


**8.** One of the most-used tools in my shop is this nylon tipped drift punch, shown with an optional brass tip in place on the handle. It has a steel pin inside the nylon tip for strength. From Brownells, and absolutely essential.

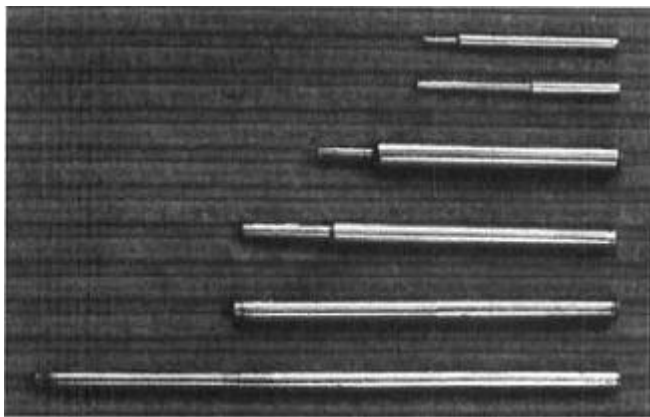


**9.** A good set of drift punches will

prevent a lot of marred pins. These, from Brownells, are made by Mayhew. The tapered punches at the right are for starting pins, the others for pushing them through. Two sizes are available-4 inches or 6 inches.

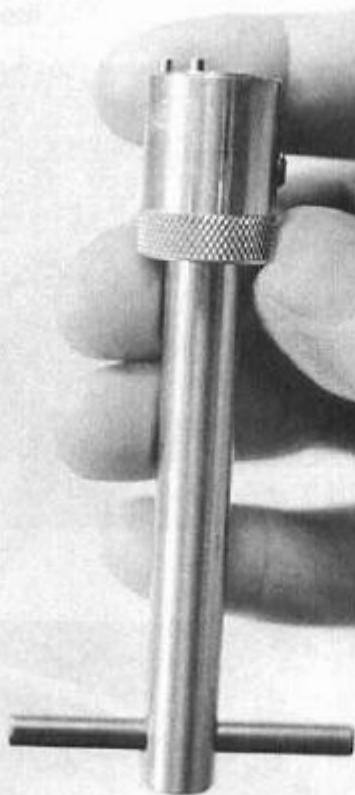


**10.** These punches by Mayhew are designed specifically for roll pins and have a projection at the center of the tip to fit the hollow center of a roll pin, driving it out without deformation of the ends. From Brownells.



**11.** Some of the necessary tools are easily made in the shop. These non-marring drift punches were made from three sizes of welder's brazing rod.





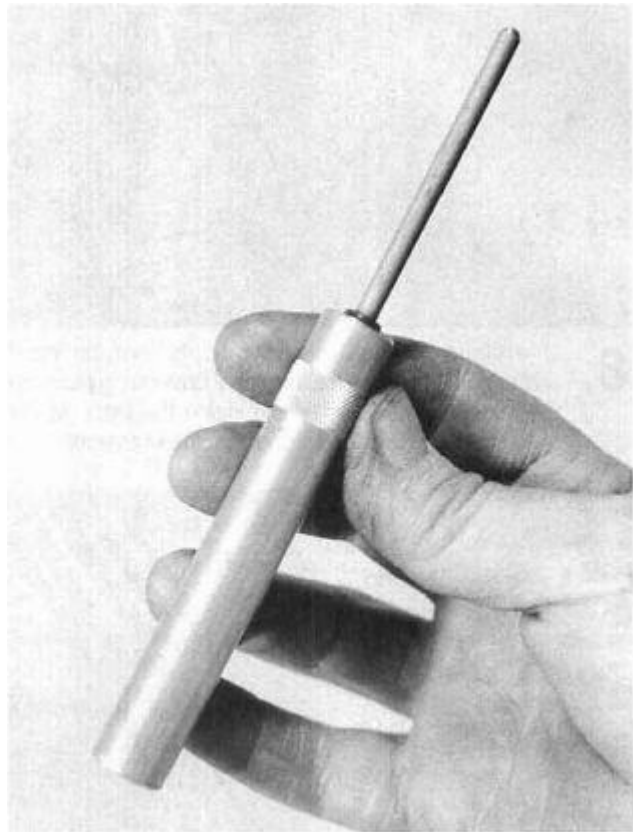
**12.** This firing pin bushing spanner wrench from B-Square adjusts to fit all bushing holes, from 3/16" to 7/16" spacing. The pins are replaceable.



**13.** Designed to fit the Winchester Model 12, this forend cap nut wrench from Brownells is also usable on several other slide-action shotguns.



**14.** One of three stock wrenches from B-Square, this one is designed especially for use on the Rernington Model 1100.



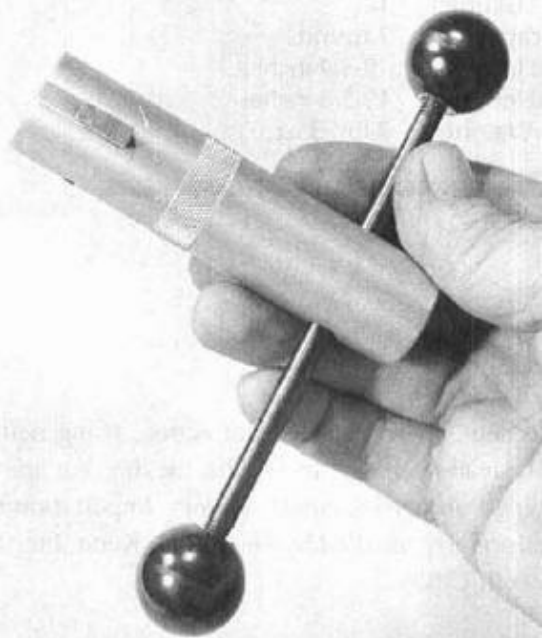
**15.** Conceived by former Gun Digest associate editor, Bob Anderson for B-Square, this handy tool is designed for pushing out the trigger group retaining cross pins in the Remington shotguns, and will work on several others. A rubber ring at the base of the shaft protects the side of the receiver.



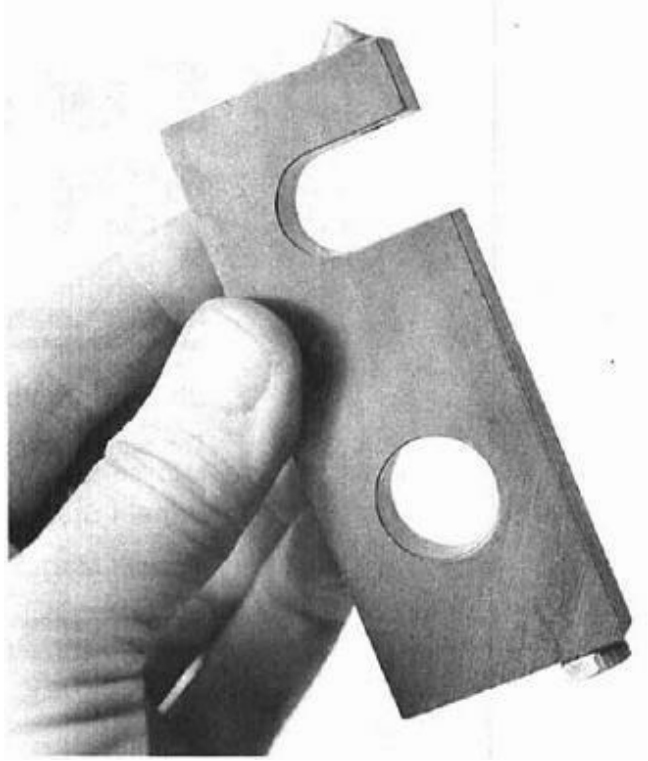


**16.** Another of the B-Squarestock

wrenches, this short version is designed especially for the Remington Model 870, but will work on several other guns.



**17.** This wrench from B-Square is for easy removal of the deeply recessed forend cap nut on the Remington Model 870.



**18.** For restaking the shell stops on

several of the Remington shotguns, this heavy tool from B-Square makes an awkward job a simple operation.

# **Benelli Model 121**

**M1**





## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Benelli Model 121 M1 also apply to the following guns:

**Benelli Standard Autoloader**

**Benelli Model 121 Slug**

**Data:** Benelli Model  
121 MI

**Origin:** Italy

**Manufacturer:** Benelli Armi,  
S.p.A., Urbino

**Gauge:** 12

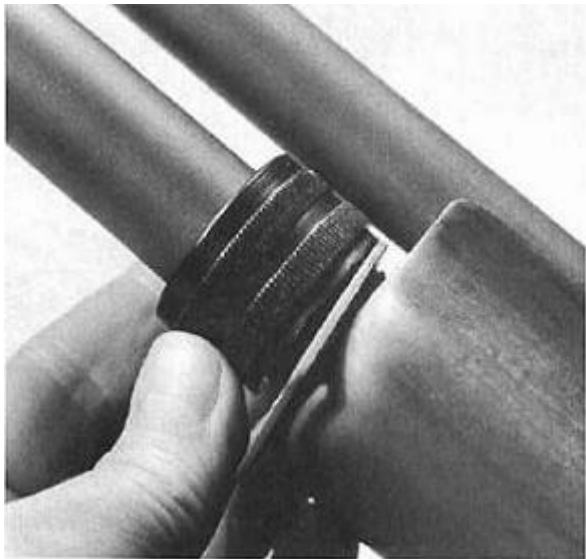
<b>Magazine capacity:</b>	7 rounds
<b>Overall length:</b>	39-3/4 inches
<b>Barrel length:</b>	19-5/8 inches
<b>Weight:</b>	7 lbs. 3 oz.

The Benelli semi-auto shotgun has an unusual action, using neither gas nor long recoil. Instead, it has a prop-type locking bar that is released by a rebounding bolt head-a unique system.

Importation and sales in the U.S. were formerly handled by Heckler & Koch, Inc. The present importer is Benelli U.S.A..

# Disassembly:

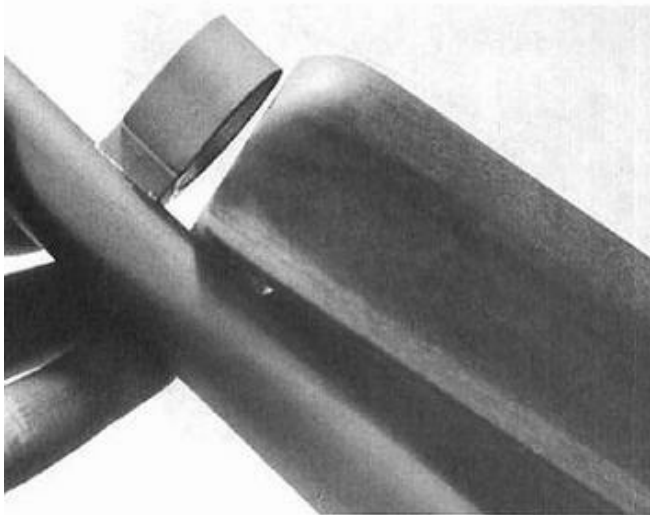
1. Loosen the cross screw in the magazine tube hanger loop at the muzzle, and slide the hanger off toward the front. Cycle the action to cock the internal hammer, and set the safety in the on-safe position. Unscrew the knurled retaining nut at the front of the forend, and the nut and the sling loop toward the front. The nut unscrews counter-clockwise (front view).



2. Remove the barrel, upper receiver, and forend toward the front. If the gun is new and tight, it may be necessary to pull the bolt half-way back

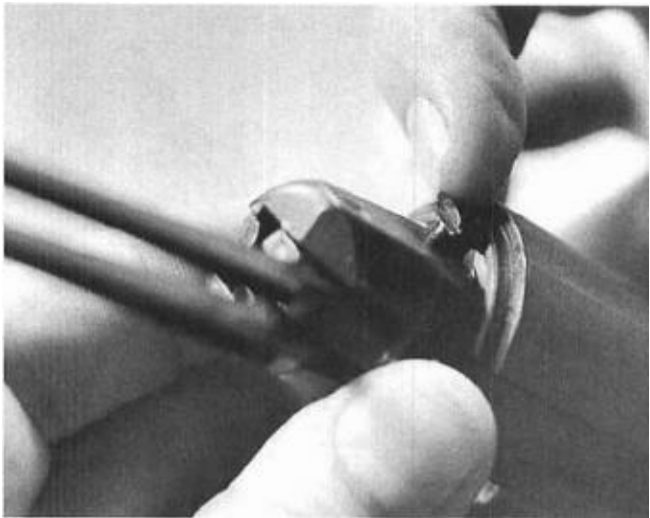
and release it several times, to start the assembly forward.





3. Tip the rear of the forend wood away from the barrel, and remove the forend downward and toward the rear. Remove the spacer ring and spring ring from the recess at the front of

the forend. The rings will be released as the wood is taken off, so take care that they aren't lost.

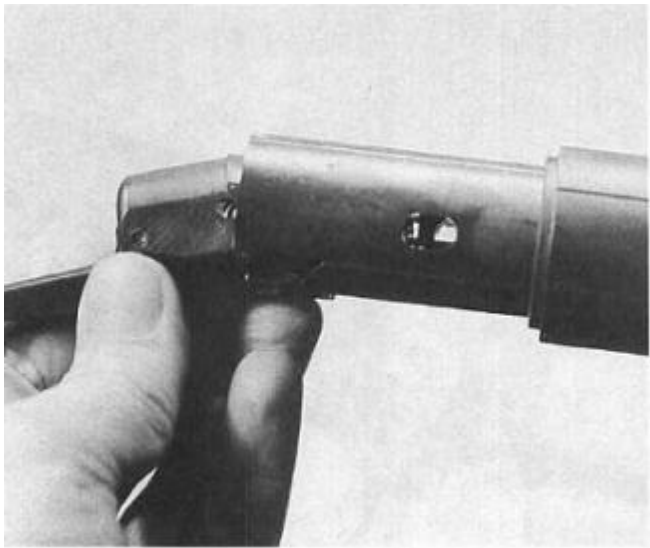


**4.** Move the bolt all the way to the

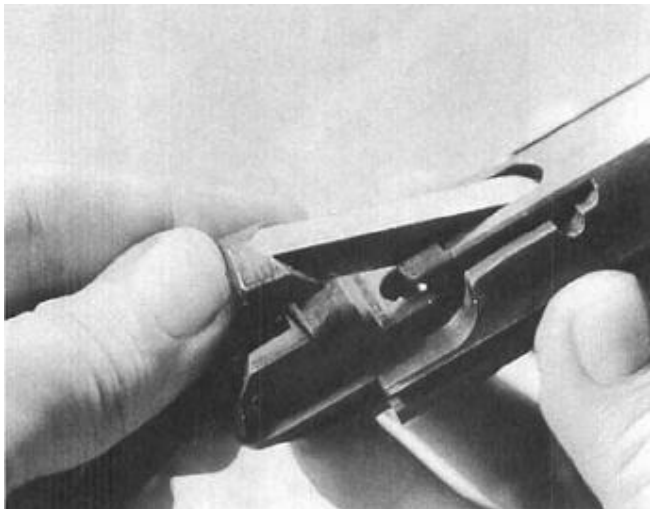


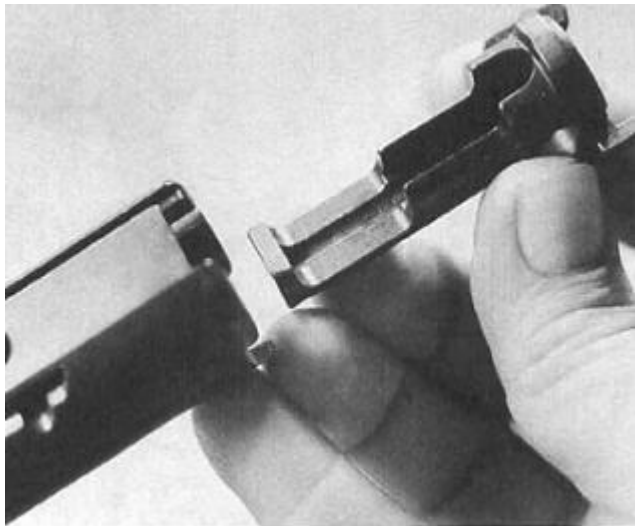
rear of the receiver, and pull out the firing pin retainer toward the right. A fingernail notch is provided in the head of the T-shaped retainer, and no tools are needed. Remove the firing pin and its return spring toward the rear.

5. Remove the cocking handle toward the right, and remove the bolt assembly toward the rear. The ejector, which is also the bolt guide, is welded in place inside the receiver, and is not removable.

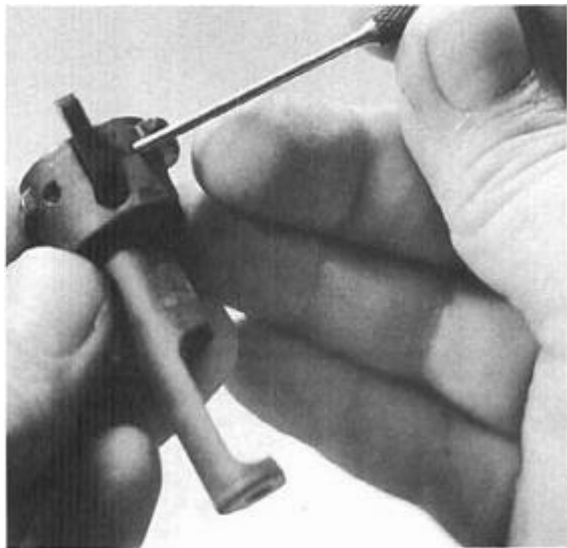


6. Remove the locking bar from the underside of the bolt carrier, outward and toward the rear.





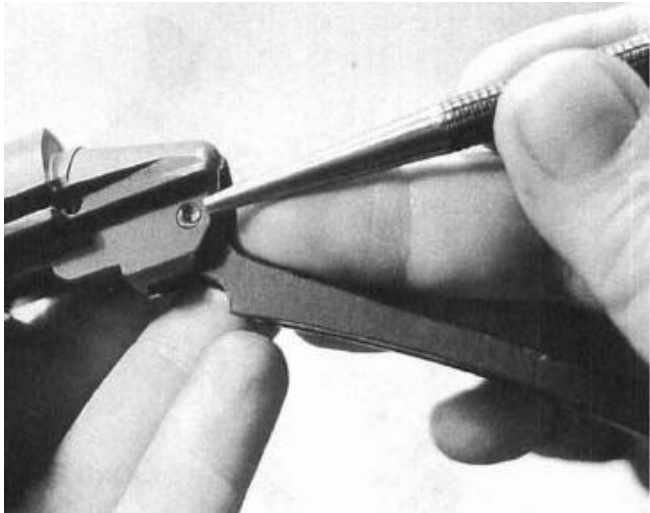
7. Remove the bolt head from the front of the bolt carrier. Remove the heavy bolt head spring toward the front.



8. The extractor and its coil spring are retained on the right side of the bolt head by a vertical roll pin. Restrain the extractor, and drift out the pin in either

direction. Remove the extractor and spring toward the right.

9. The recoil spring connector strut is retained at the lower rear of the bolt carrier by a cross pin that is riveted on both sides. Unless removal is necessary for repair, this pin should be left in place.



**10.** Drift out the roll pin at the lower rear of the lower receiver, directly above the safety. Push the carrier latch, and tip the carrier up to its raised position. Use a nylon-

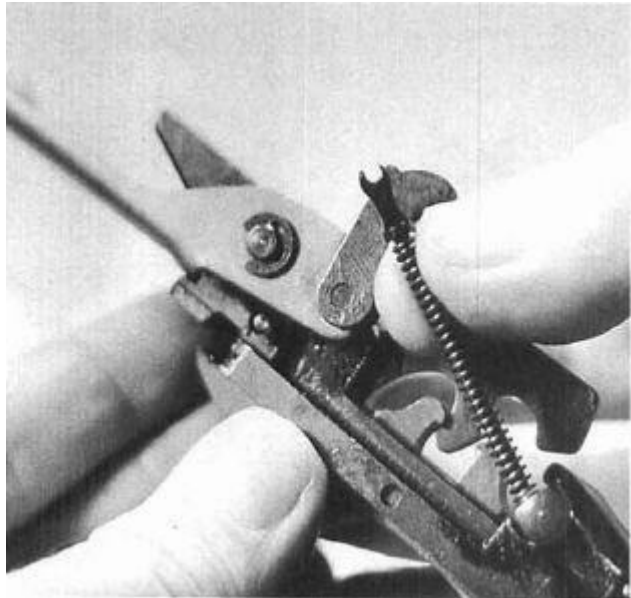
tipped drift punch to nudge the trigger group downward at the rear. Be sure the carrier stays elevated, or it will be damaged.







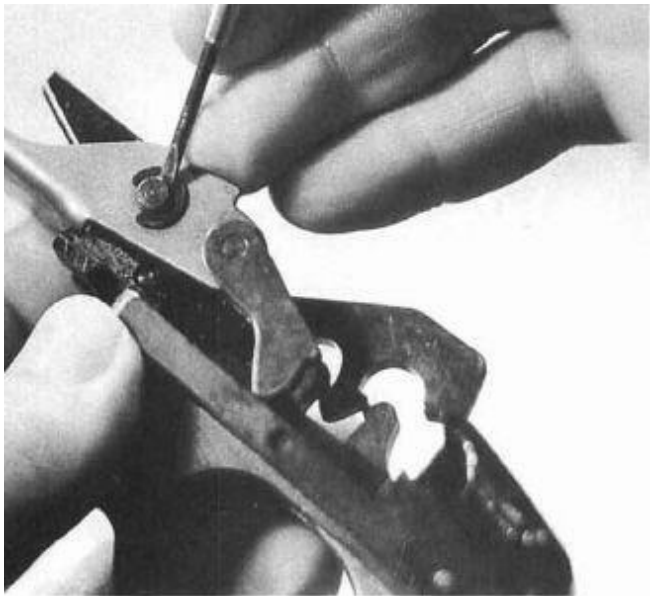
11. When the trigger group is free, remove it downward and toward the rear.



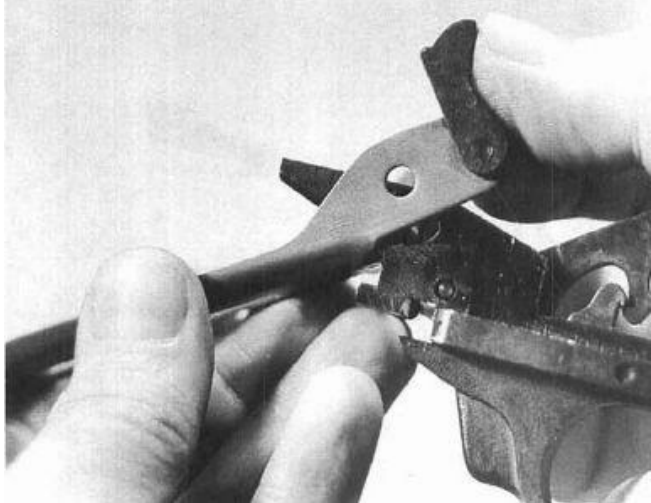
**12.** Grip the front of the carrier spring guide firmly, and move it toward the rear to detach it from its cross pin in the

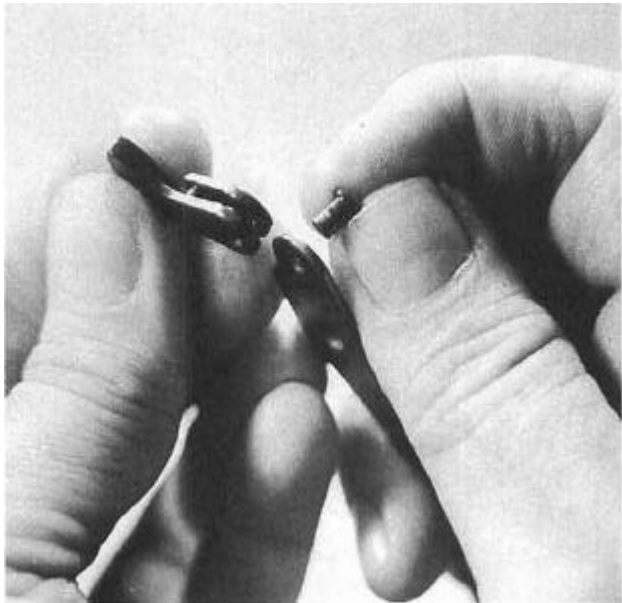
carrier dog. Slowly release the spring tension, and remove the guide, spring, and spring base from the trigger group.

- 13.** The carrier pivot is retained on both sides of the group by C-clips, but only one has to be taken off. Remove the C-clip from either side, restraining it as it is pried from its groove to prevent loss. Remove the carrier pivot from the trigger group.



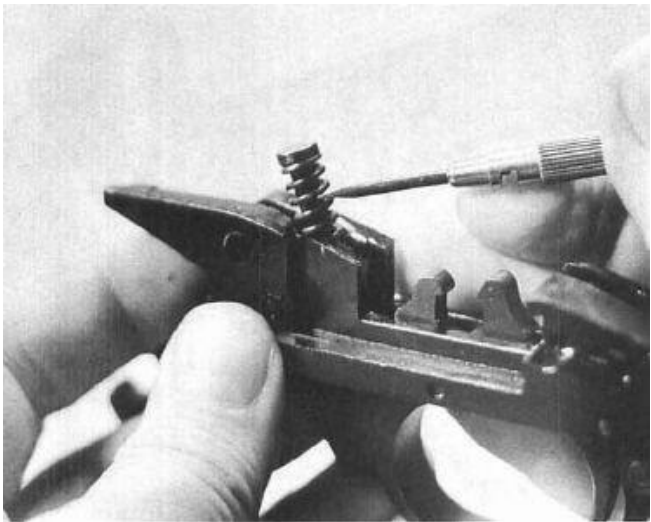
**14.** Remove the carrier upward.





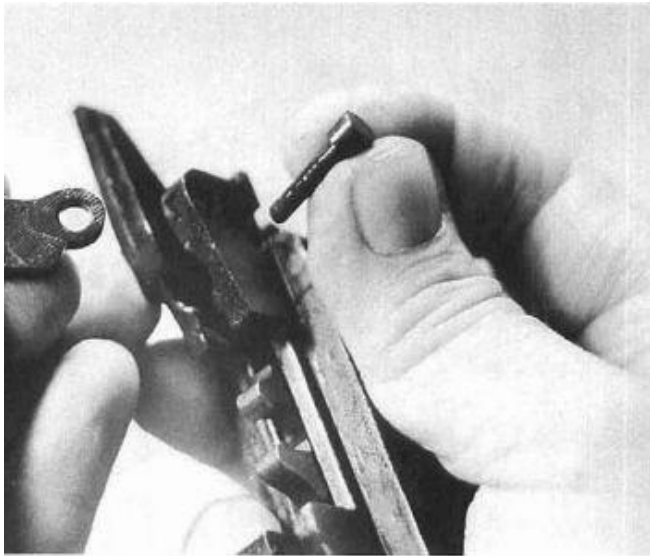
**15.** The carrier dog pivot is easily removed, and the dog is then detached from the carrier. The pivot is held in place by the

side of the group unit when the carrier is in place, and is freed as the carrier is taken off, so take care that it isn't lost.

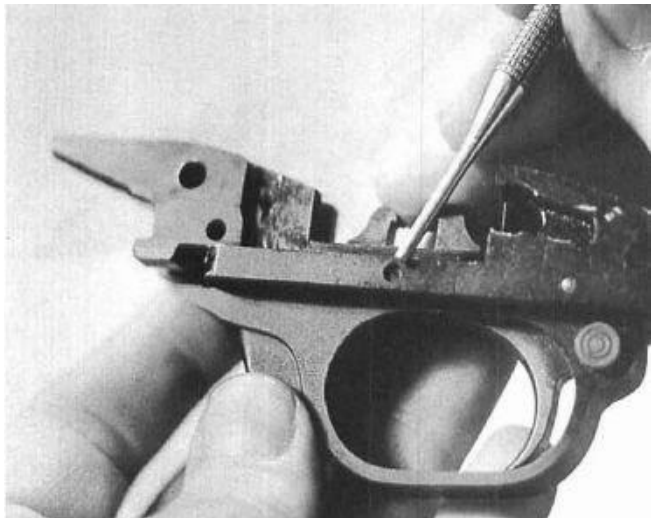


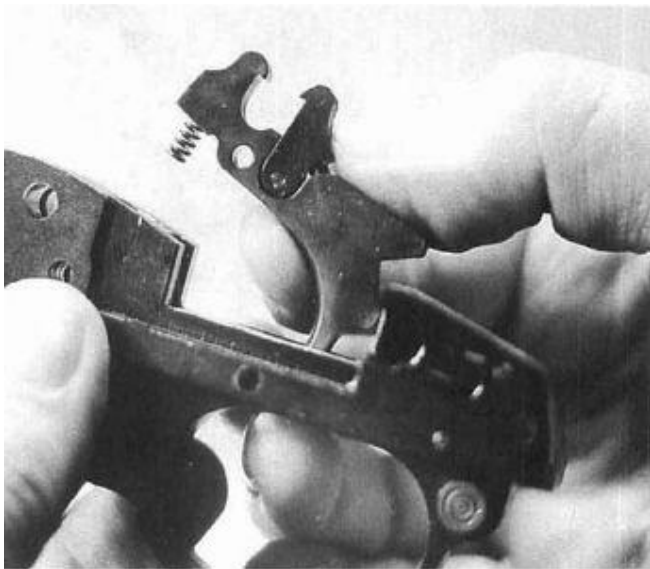
- 16.** Move the safety to the off-safe position, pull the trigger, and ease the hammer over forward, beyond its normal fired position. The hammer spring and follower can now be removed upward.
  
- 17.** Pull out the hammer pivot toward the right, and remove the hammer upward.





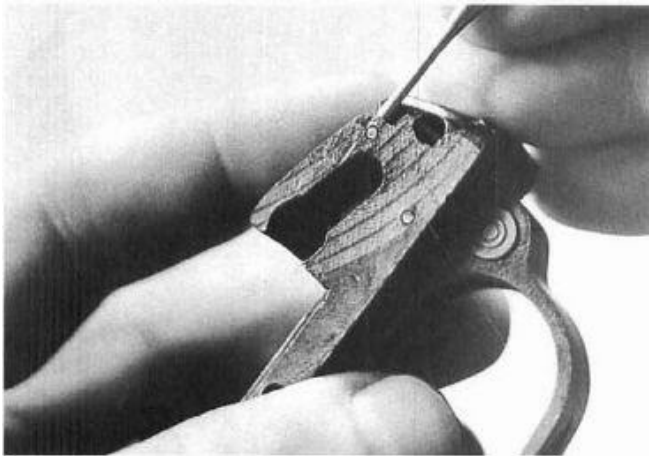
**18.** Restrain the trigger, and drift out the trigger pin toward the right.





**19.** Remove the trigger assembly upward. The trigger spring is easily detached from the front of the trigger. The secondary sear, or disconnecter, and its

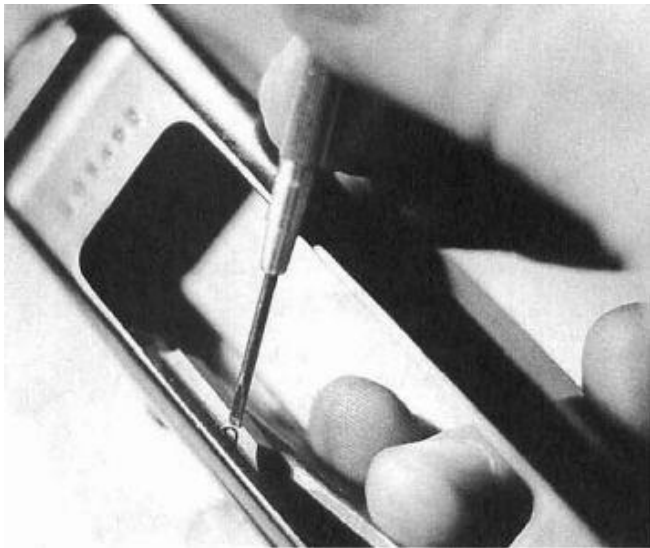
plunger and spring can be removed from the trigger by pushing out its cross pin. Caution: Control the plunger and spring as the pin is taken out



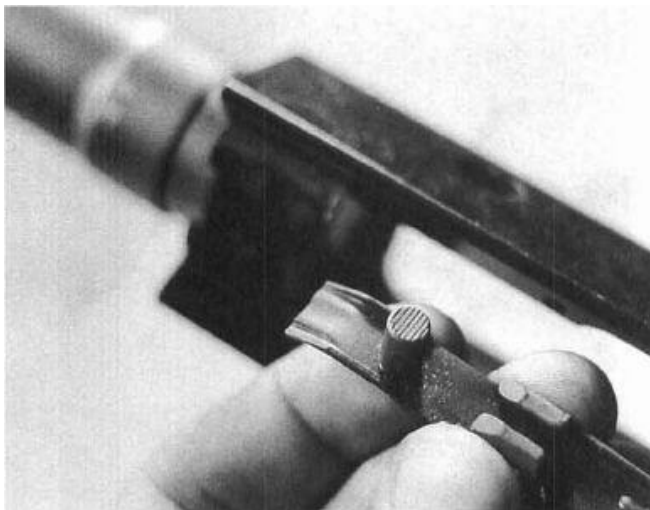
**20.** Hold a fingertip over the hole on top of the group at the rear to arrest the safety spring, and drift the small cross pin at upper rear toward the right until the hole is cleared. Remove the safety spring and plunger upward, and push out the safety button toward either side. If the plunger fails to come out with the spring, tap the trigger group on the workbench to free it. The other small cross pin at the rear of the group is a limit pin for the trigger. It retains no part, and need not be removed

in normal takedown.

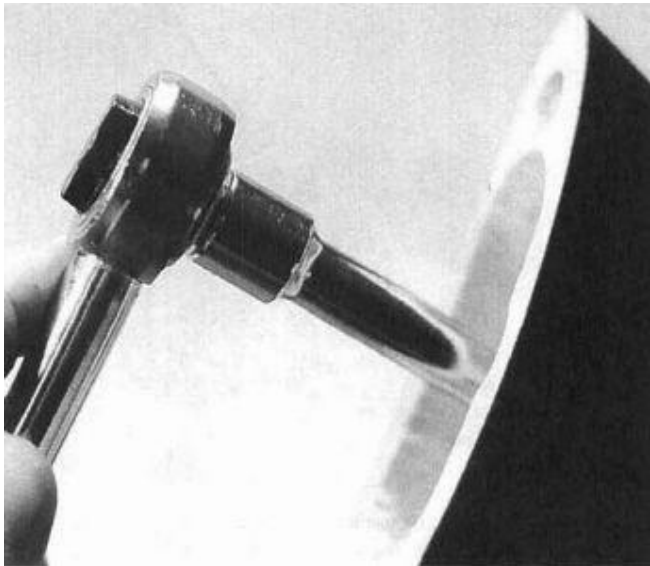
- 21.** The carrier latch and its spring are retained inside the right wall of the lower receiver by a vertical pin which is pushed out upward. Only half of the lower tip of the pin is accessible, and a very small screwdriver or an opened paper clip should be used to push the pin. Restrain the carrier latch.



**22.** After the pin is pushed out, remove the carrier latch from the lower receiver. The spring is easily detached from the carrier latch, if necessary.

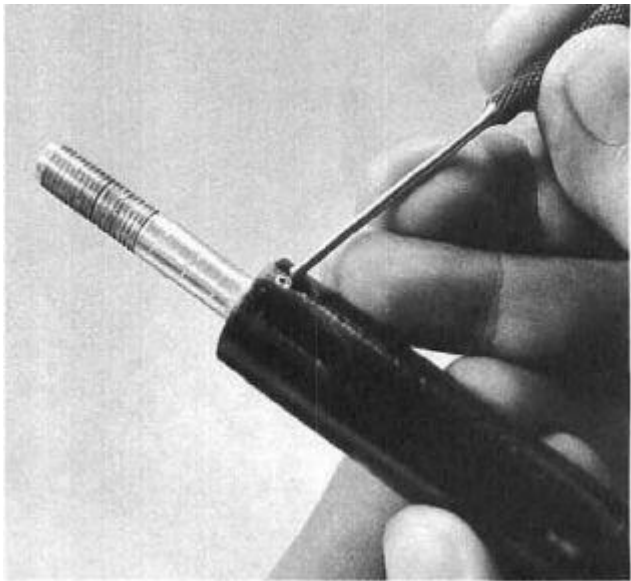






**23.** An ordinary socket wrench can be used to remove the nut under the buttplate that retains the stock. The exact size of the nut is 13mm, but if no metric

socket is available, a standard 1/2-inch socket will work. Take off the nut, lock washer, and spacer washer, and remove the buttstock toward the rear..

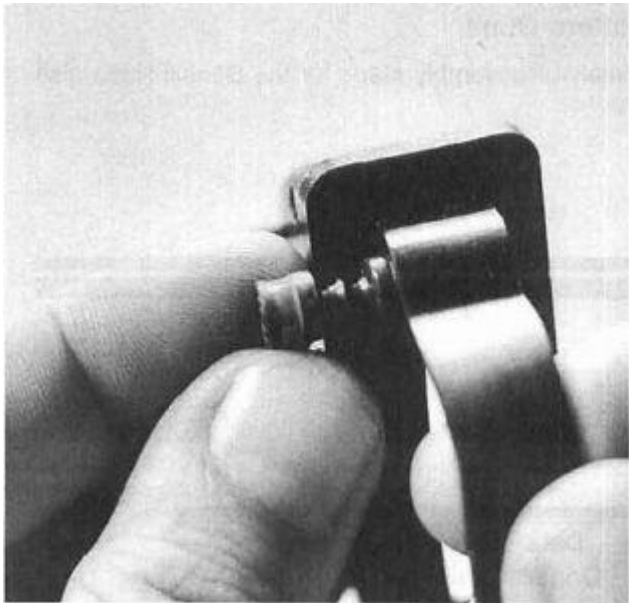


**24.** Drifting out the vertical roll pin at the rear of the recoil spring housing will release the stock mounting bolt for

removal toward the rear. Caution: The stock bolt is also the retainer for the recoil spring, so restrain it during removal. Take out the spring and follower toward the rear. No attempt should be made to remove the spring housing or the magazine assembly from the lower receiver.

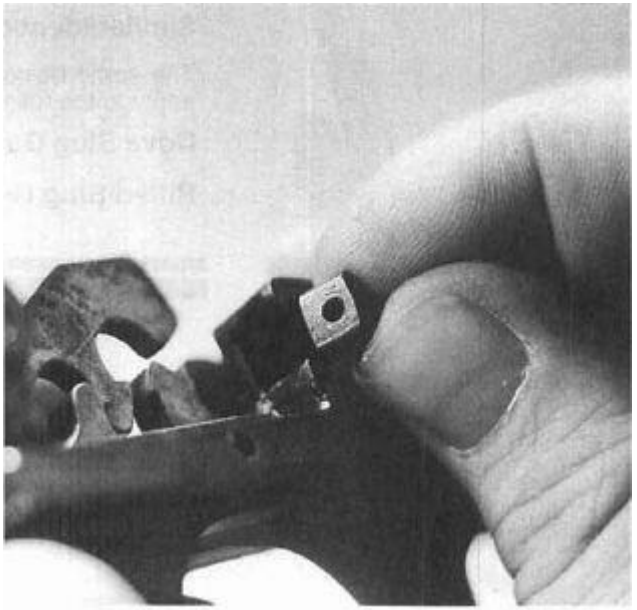
# Reassembly Tips:

1. When replacing the safety button in the trigger group, remember that the end with the red band goes on the left side.



2. When replacing the carrier spring base in its recess on the left side of the trigger group, note that the hole in the base is

off-center. The end nearest to the hole must go toward the outside-that is, to the left. Also, the flat face of the base goes to the front.



The bolt head must be pushed to its rear position in the carrier before the cocking handle can be reinserted.



When replacing the two rings in the front of the forend, the plain ring goes in first, and the spring ring at the front.

When moving the barrel and receiver assembly toward the rear, be sure the rear tip of the recoil spring strut on the bolt carrier engages the cup of the spring follower.

# Benelli Nova



## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Benelli Nova also apply to the following guns:

**Nova Slug Gun,  
Rifled Slug Gun.**

<b>Data:</b>	Benelli Nova
<b>Origin:</b>	Italy
<b>Manufacturer:</b>	Benelli Armi, Urbino, Italy
<b>Gauge:</b>	12 only 4 rounds (2 3/4-

<b>Magazine capacity:</b>	inch shells), 3 rounds (3 1/2 inch shells)
<b>Overall length:</b>	49-1/2 inches
<b>Barrel length:</b>	28 inches (others offered)
<b>Weight:</b>	8 pounds.

An excellent exercise in modern design and polymer construction, the Benelli Nova was introduced in 1999.

One of its notable features is a magazine cutoff button that is located at center underside on the forend, allowing a load change with the other rounds kept in reserve. Overall, the Nova is a beautifully-engineered design.

# Disassembly:

1. Cycle the action to cock the internal hammer, and set the manual safety in on-safe position. Unscrew the magazine end cap. Operate the slide latch, and move bolt slightly toward the rear. Remove the barrel toward the front.

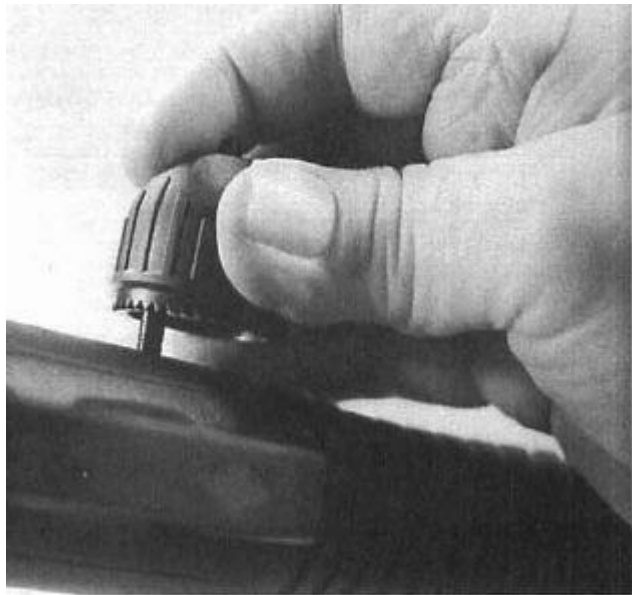


- 2.** Use a drift punch, or the provided nose on the magazine end cap, to start the trigger group cross pins out



toward the left.





- 3.** You can drift the pins all the way out, or use the flange on the inside of the magazine end cap to pull them out. Note, for

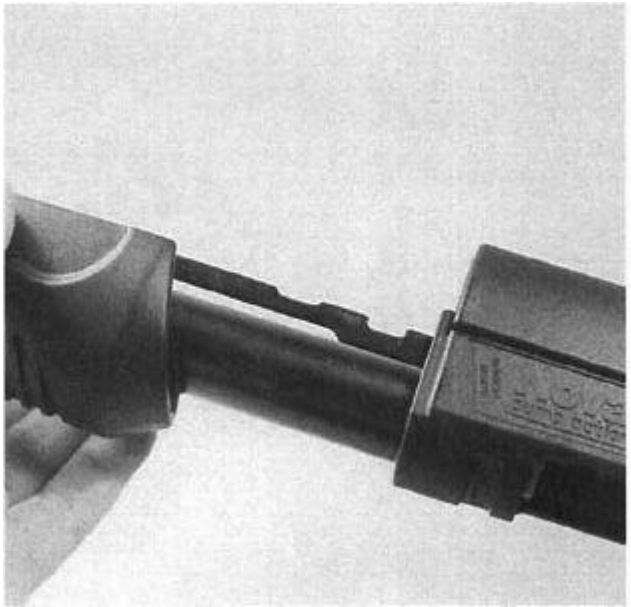
reassembly, that the cross pins are not of equal length.



**4.** Tilt the trigger group downward

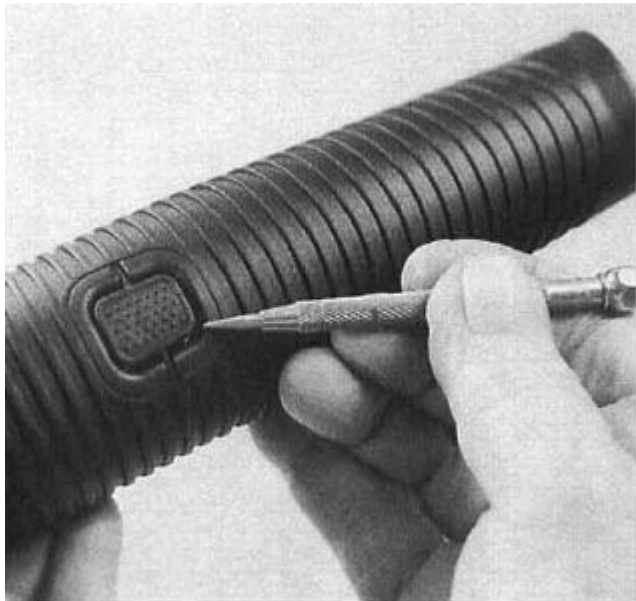
at the rear, and take it out rearward and downward.

- 5.** Push on the top of the action bars to tilt them away from their engagement with the bolt, and take out the action slide assembly toward the front.



- 6.** The action bars are retained in the forearm by two short pins that are not routinely removable.





7. The magazine cutoff button can be taken out, inward, by inserting a tool inside to depress its detent plunger.

Caution: control the plunger and its coil spring.

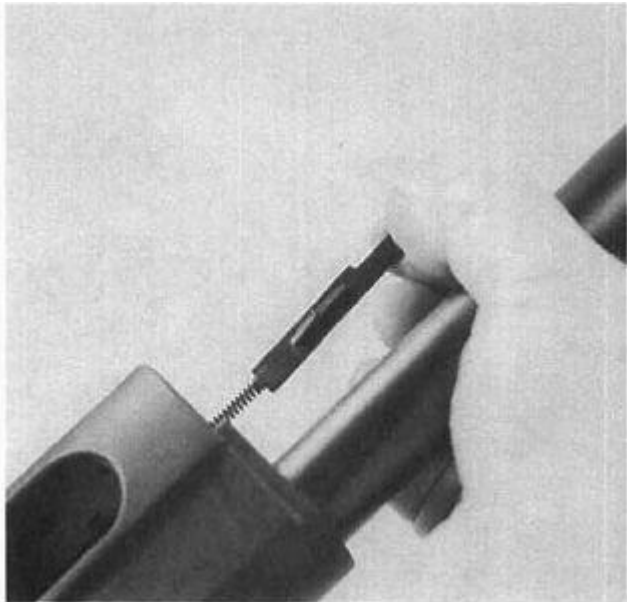


**8.** With the bolt at the rear of the



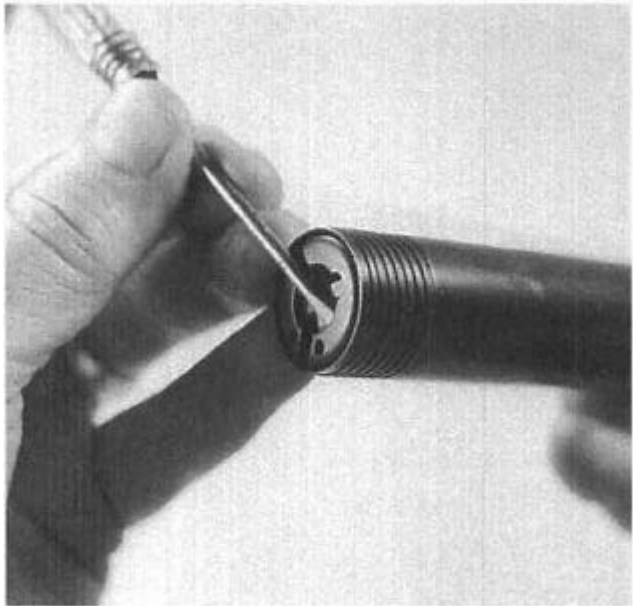
receiver, compress the bolt head into the bolt body, and lift the assembly out.

9. By repeatedly drawing back the ejector and releasing it to strike its roll-pin retainer, it is possible to push out the pin, and remove the ejector and its long coil spring. If this is done, keep a finger near the retainer pin, to arrest it and prevent loss.



**10.** The magazine spring and follower can be removed in the usual way, by prying out the retainer at the outer end of

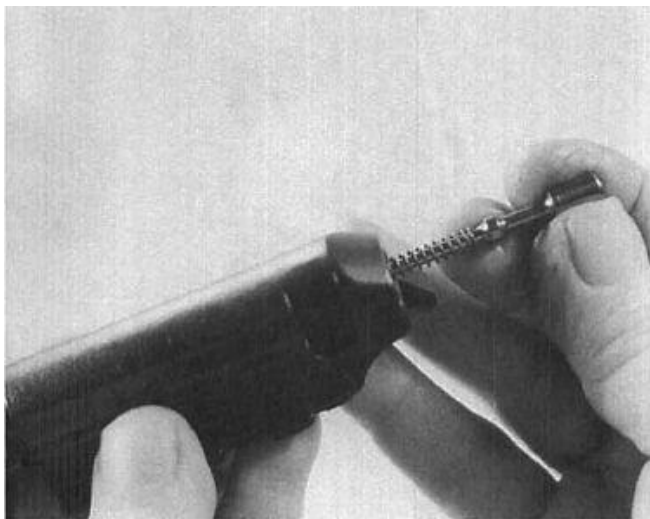
the tube. **Caution:** *Control the  
retainer and spring.*





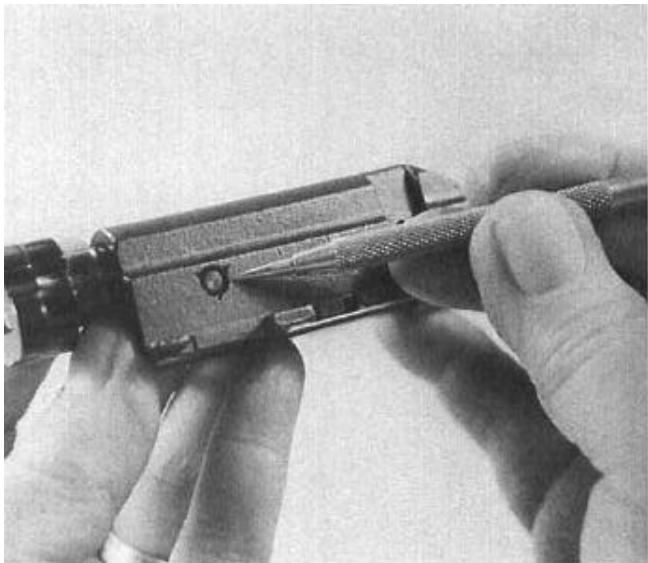
- 11.** Restrain the firing pin, and pull out the firing pin retainer. Note that the retainer has a rubber O-ring at its head, and

be sure this isn't dislodged.



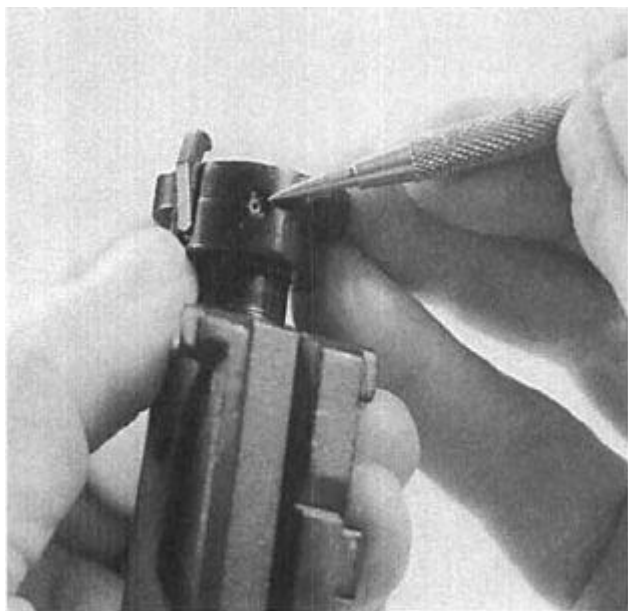
**12.** Remove the firing pin and its spring.

**13.** It is possible, if necessary for repair, to drift out the large cross pin that retains the bolt head in the bolt. The pin, however, is heavily factory-staked in place. In normal takedown, it should be left in place. If it must be taken out, it is drifted toward the left, in the direction of its staked head.



**14.** The extractor is pivoted and retained by a roll-pin, which is drifted out downward. Restrain the extractor during removal, and take out the

extractor and its coil springs





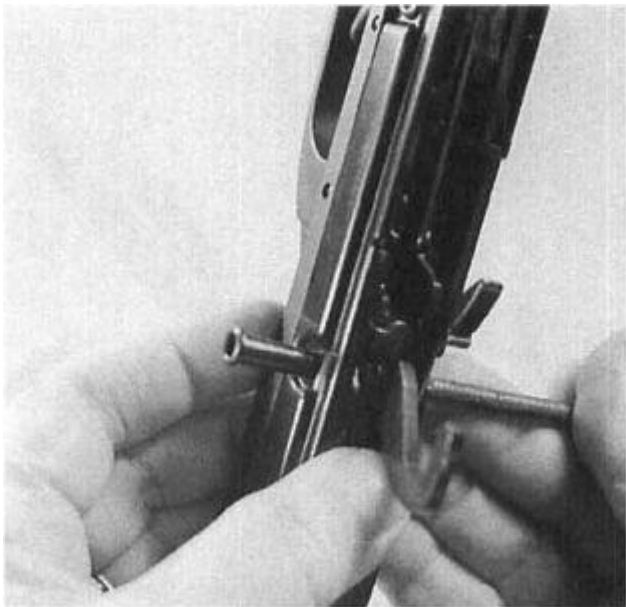


**15.** Restrain the hammer, pull the trigger, and ease the hammer down to fired position. Insert a sharp tool beneath the

rounded part of the spring clips on the left end of the trigger group cross-pin sleeves, and tip off both spring clips. Restrain them, and take care that these small parts are not lost.



- 16.** Moving it evenly at front and rear, remove the left sideplate. The front portion of the sideplate is the secondary shell stop.
  
- 17.** Using a rod or drift of appropriate size, push the front cross-pin sleeve just far enough toward the right to free the hammer.



**18.** Remove the hammer upward.





**19.** Restrain the bolt latch and hammer spring, and remove the front cross-pin sleeve toward the right.

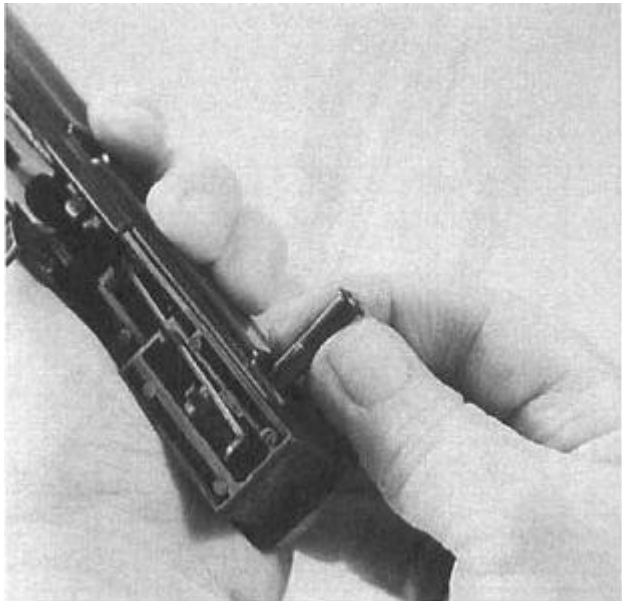


**20.** Move the bolt latch slightly rearward, and slowly release the hammer spring tension.

Remove the hammer spring and plunger upward.

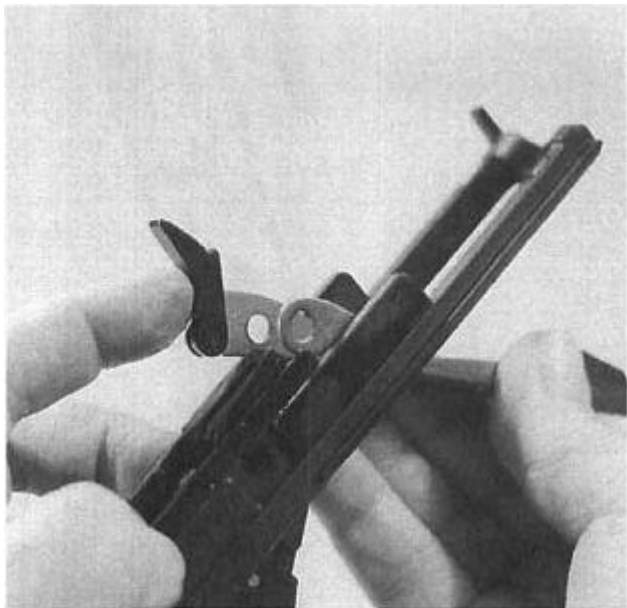
- 21.** Remove the rear cross-pin sleeve and take off the right sideplate. Note that the front of the sideplate the primary shell stop, and that it has a tab that engages a recess inside the front extension of the trigger group housing.

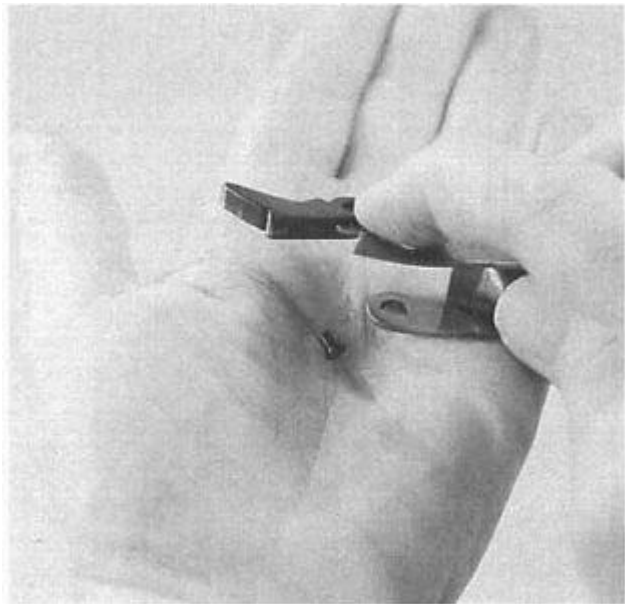




**22.** Move the carrier assembly forward, and tip it downward for removal. Note that the carrier dog retaining pivot is

held in place only when in its slot in the group housing, so take care that it doesn't fall out.



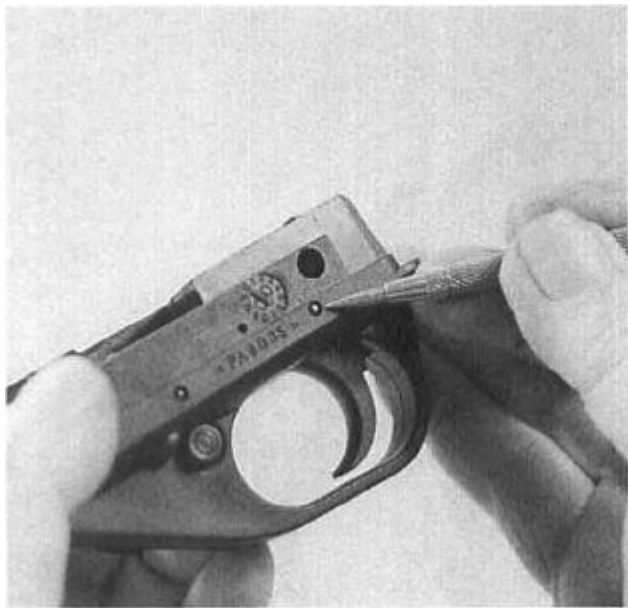


**23.** Turn the carrier over your hand, and the dog pivot will fall into your palm. The dog can now be taken off.



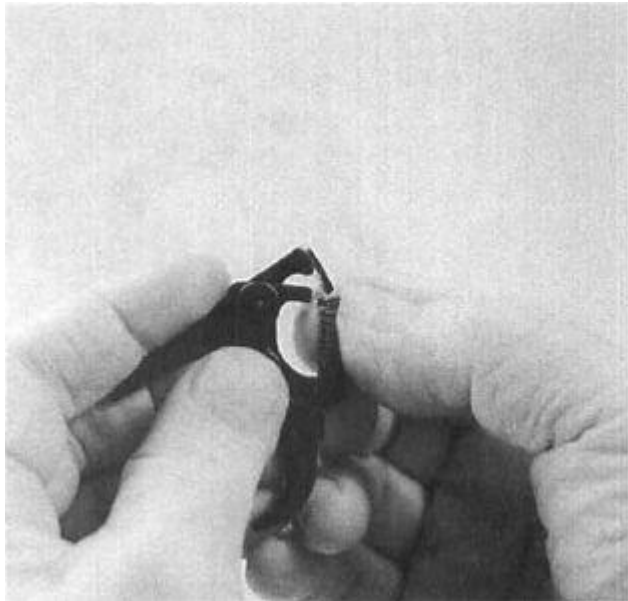
**24.** Remove the carrier plunger and spring.

**25.** Push out the trigger cross pin.



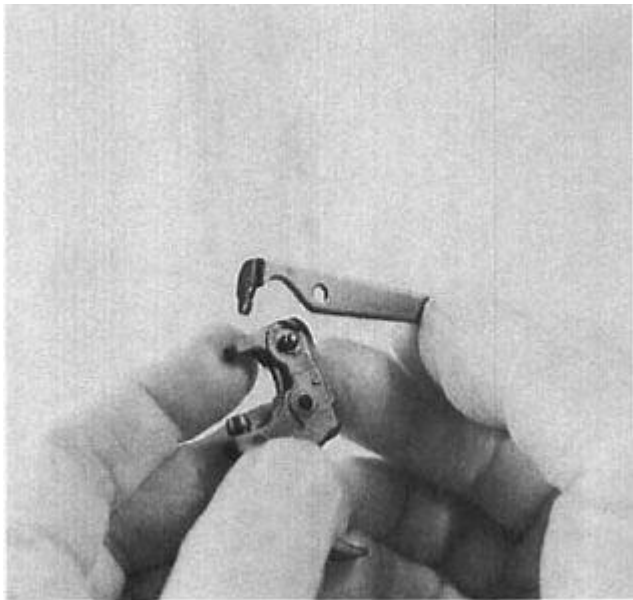
**26.** Remove the trigger assembly upward.





**27.** Detach the trigger spring from its stud on the dis- connector. Turn it clockwise (top view) to remove it from the trigger

stud.



**28.** The disconnector is easily lifted off its pivot pin on the



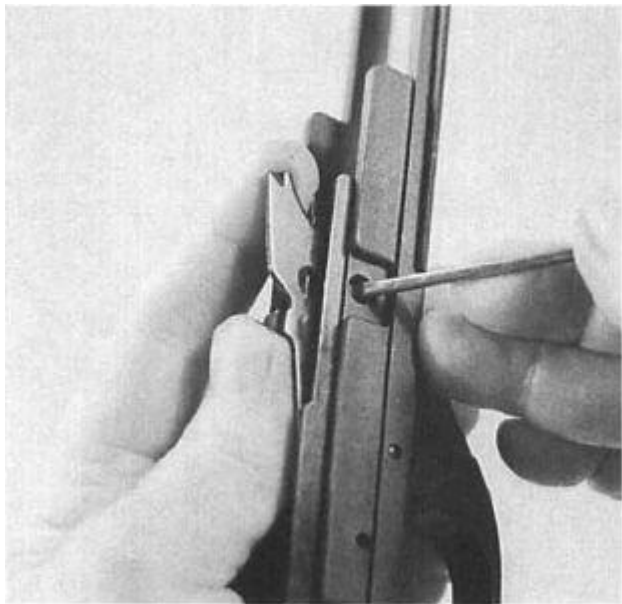
trigger. The pin should be left in place.

- 29.** Use a small tool to push the bolt latch spring retaining pin outward for removal. Restrain the spring, as it may or may not fit tightly in its recess.



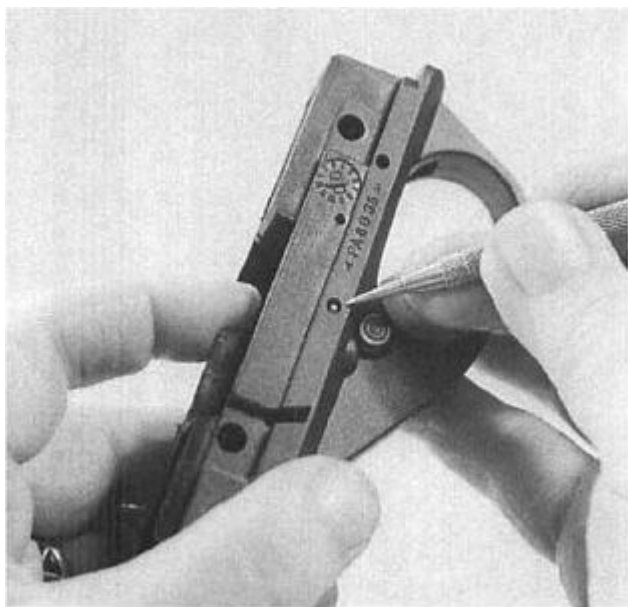
**30.** Remove the bolt latch spring, moving it forward and upward.





**31.** The bolt latch can now be removed upward. Because its lower tip is angled slightly outward, it will have to be

gently pried.



**32.** Restrain the sear, and push out the sear cross pin.

**33.** Remove the sear and its coil spring upward.





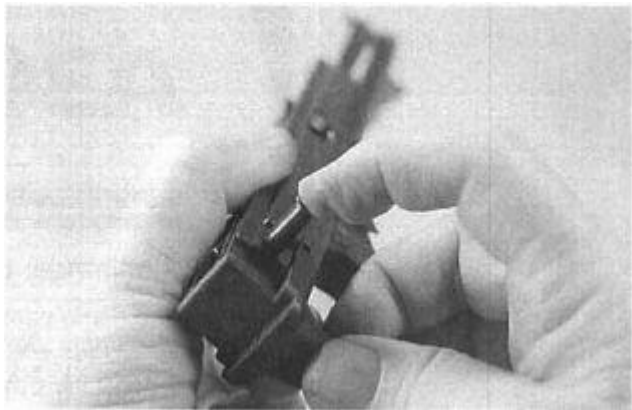
**34.** If removal of the manual safety is necessary for repair, put the button in on-safe position, and insert a small tool with an L-

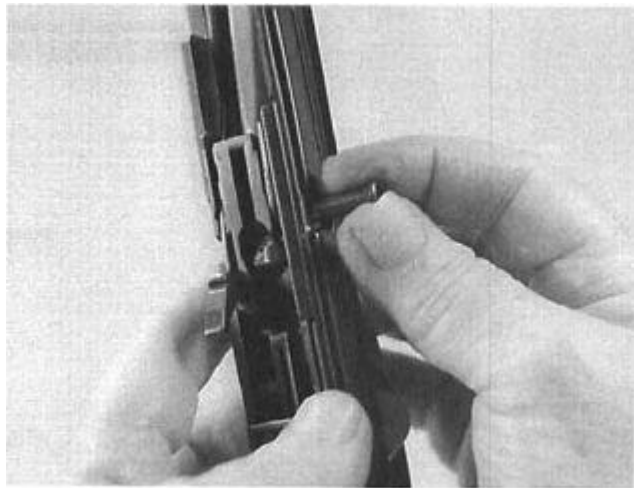
shaped tip, such as the dental tool shown, to depress its plunger and spring. The safety button is then easily pushed out. **Caution:** *Keep the plunger and spring under control.*



# Reassembly Tips:

1. When re-installing the rear cross-pin sleeve, the trigger must be pulled slightly to clear.





2. Insert the front cross-pin sleeve in small increments, getting it through the carrier arm, the bolt latch, the hammer, and so on. Remember to install the hammer spring and plunger

before putting in the bolt latch.



3. Remember that the bolt head must be compressed into the bolt body for reinsertion into the receiver. Be sure the lugs on the action slide bars mate properly with their recesses

on the bolt.

# **Beretta Model A303**



## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Beretta Model A303 also apply to the following guns:

**Beretta Model AL-2**

**Beretta Model A301**

**Beretta Model AL-3**

**Beretta Model A302**

<b>Data:</b>	Beretta Model A303
<b>Origin:</b>	Italy Armi Beretta

<b>Manufacturer:</b>	S.p.A. Gardone, V.T. (Brescia)
<b>Gauges:</b>	12
<b>Magazine capacity:</b>	2 rounds
<b>Overall length:</b>	44 inches (with 24-inch barrel)
<b>Barrel length:</b>	24, 26, 28, 30 & 32 inches
<b>Weight:</b>	6-1/2 to 7-1/2 pounds

The original Model A303 was introduced in 1983, and in 1989 a Sporting Clays version was offered, with a wide barrel rib and different



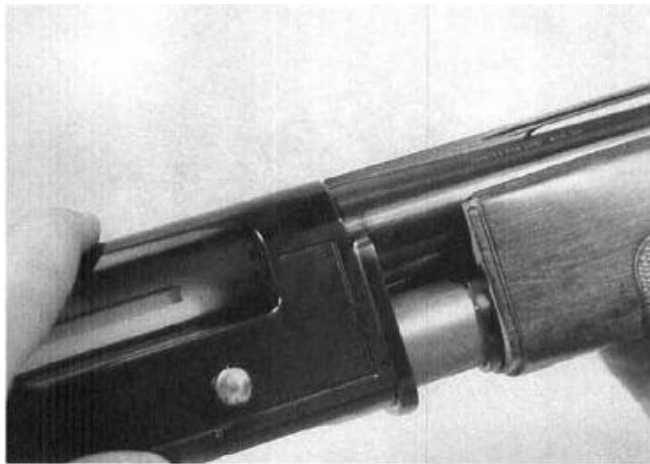
stock dimensions. Also, in 1989, the A303 Upland Model was introduced. In 12-gauge only, it has a shorter barrel and an English-style buttstock. The earlier guns, the AL-2, AL-3, A301 and A302, are essentially the same, mechanically.

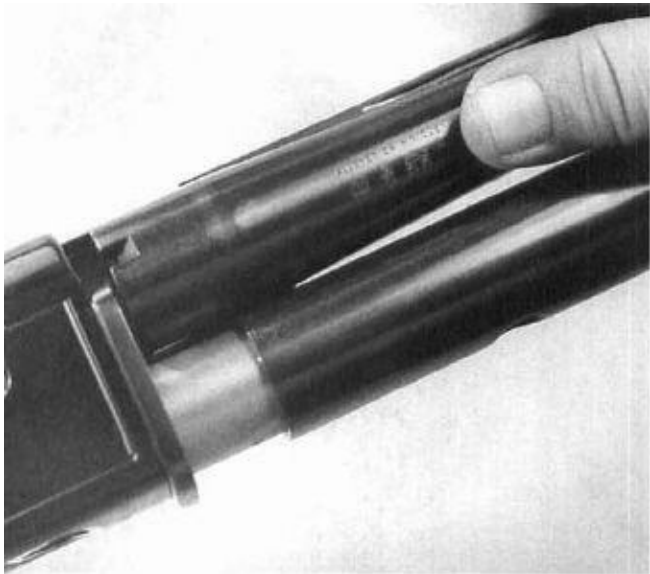
# Disassembly:

1. Lock the action open, and set the safety in on-safe position. Unscrew and remove the forend cap.

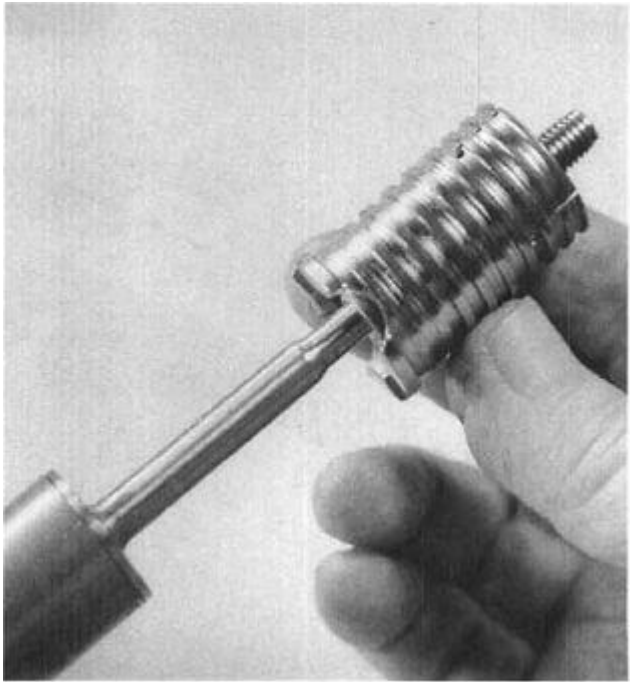


**2.** Slide the forend off toward the front.



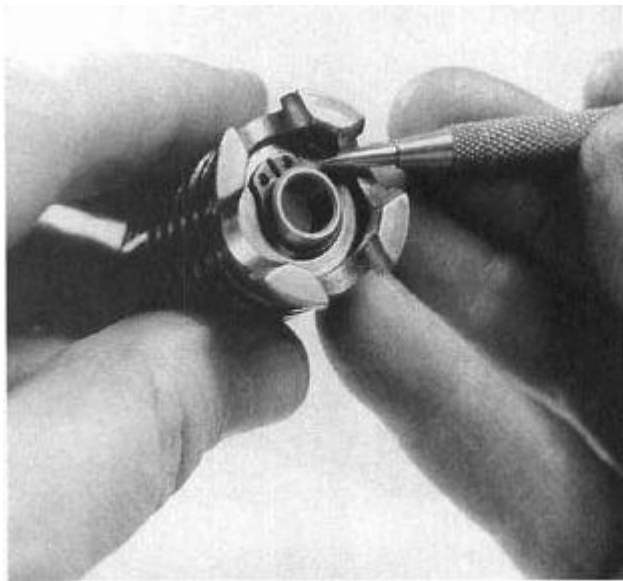


**3.** Remove the barrel toward the front.



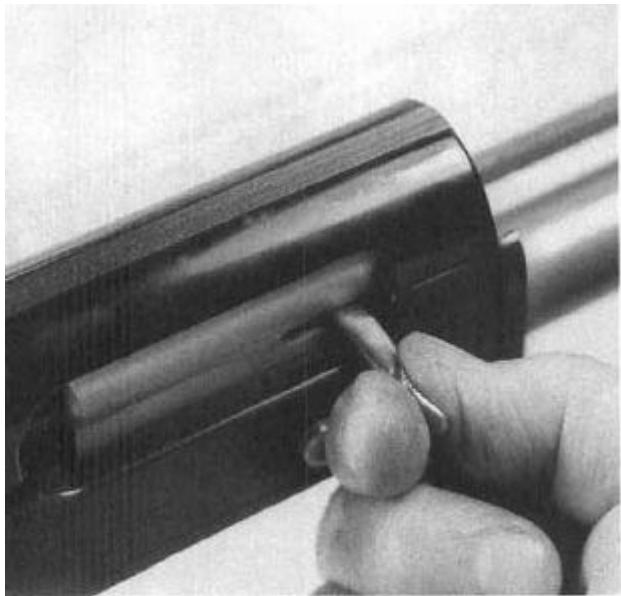
**4.** Remove the gas piston.

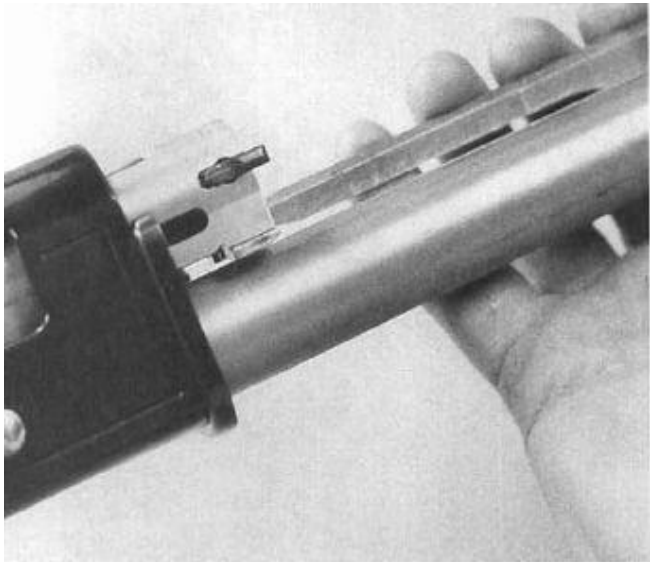
- 5.** The bushing inside the piston is retained by a ring-clip. This is not removed in normal takedown, only for repair.



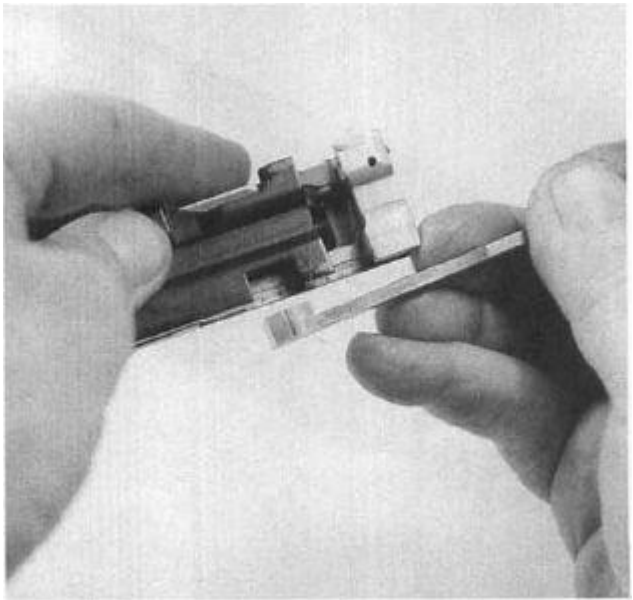
6. Restrain the bolt, press the release button, and ease the bolt to forward position. Grip the cocking handle firmly, and remove it toward the right.





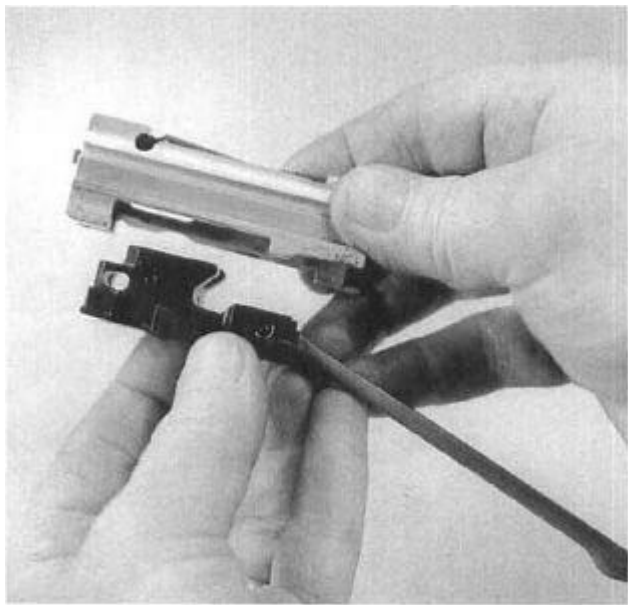


7. Move the action slide assembly forward, while pushing gently on the rear of the bolt, and remove the bolt and action slide.



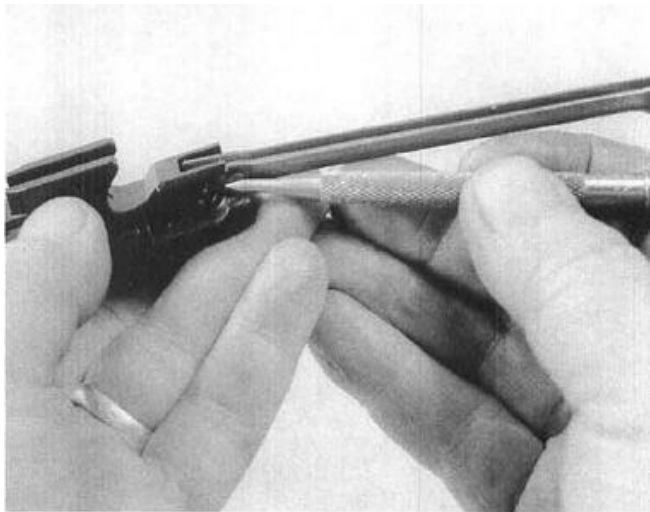
**8.** Detach the bolt from the action slide.

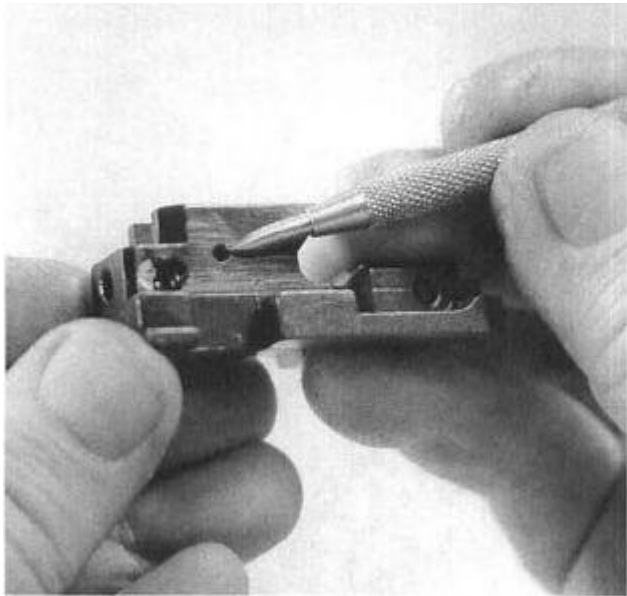
**9.** Detach the slide plate and spring strut from the bolt.



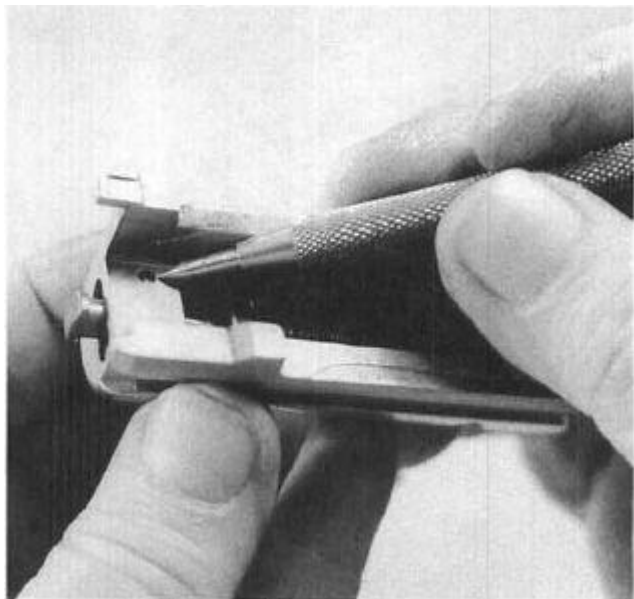
**10.** Push out the cross pin, and

detach the strut from the slide plate.





**11.** A roll cross pin retains the bolt handle retaining plunger and spring. If this assembly is removed, restrain the spring.

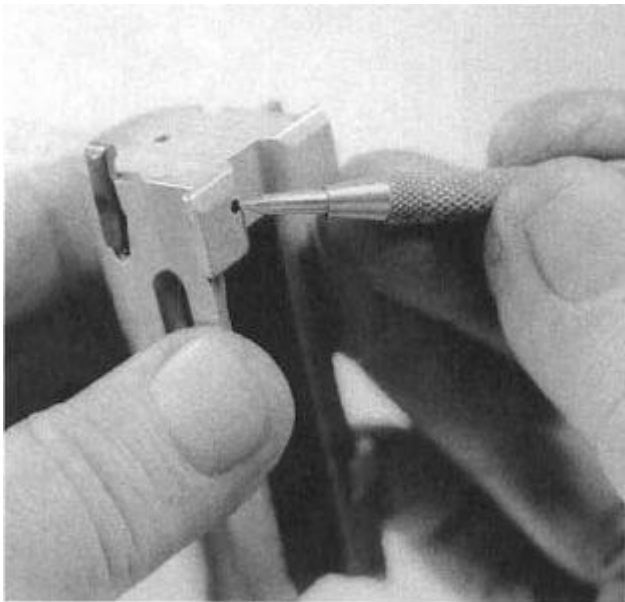


**12.** The firing pin and its return spring are retained by a vertical pin on the right side of

the bolt at the rear. The pin must be drifted out upward. After removal of the firing pin, the locking block can be turned upward, and is taken out toward the left.

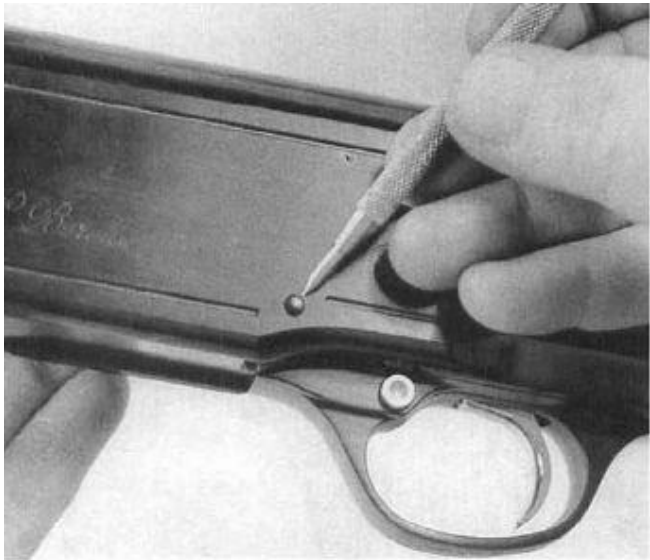
- 13.** The extractor and its coil spring are retained by a vertical pin on the right side of the bolt at the front. The pin is drifted out upward. It is lightly staked at the top, and should be re-staked on reassembly.





**14.** Depress the carrier stop button toward the rear, allowing the carrier to drop lower.



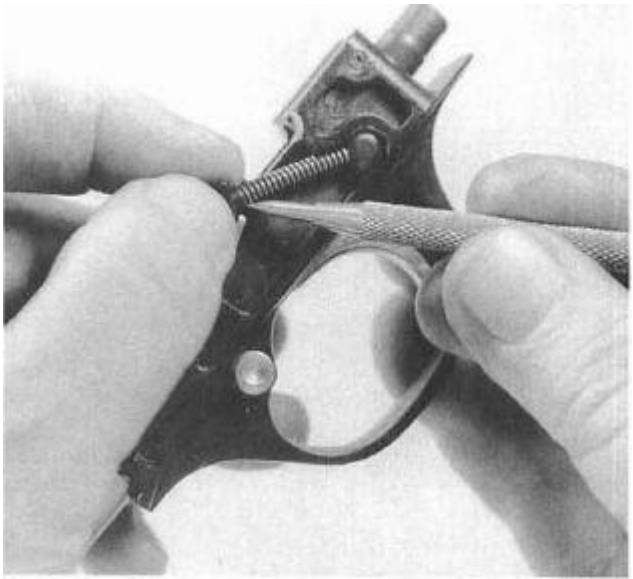


**15.** With a non-marring tool, push out the trigger group retaining pin.



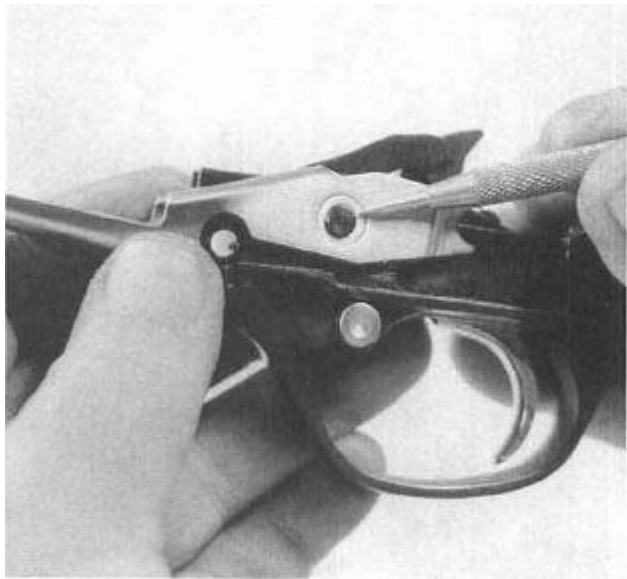
**16.** Depress the carrier latch button, and move the trigger group forward and downward for removal.

**17.** With the carrier in the fully lowered position, grip the carrier spring firmly, and compress it slightly rearward while moving the semi-circular attachment at the front upward, to disengage it from the recess in the carrier. Remove the spring, guide, and attachment piece.



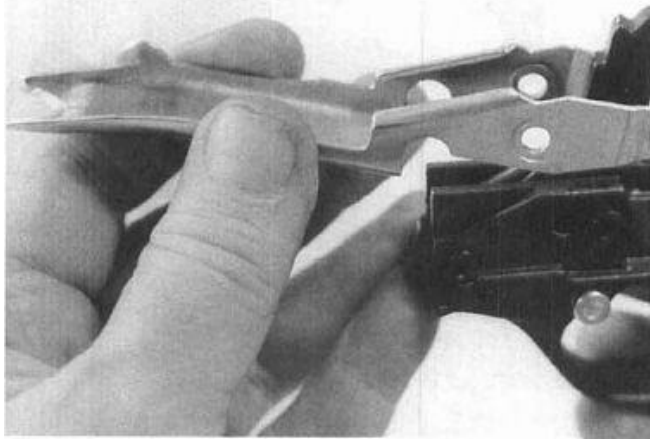
**18.** Remove the spring base.





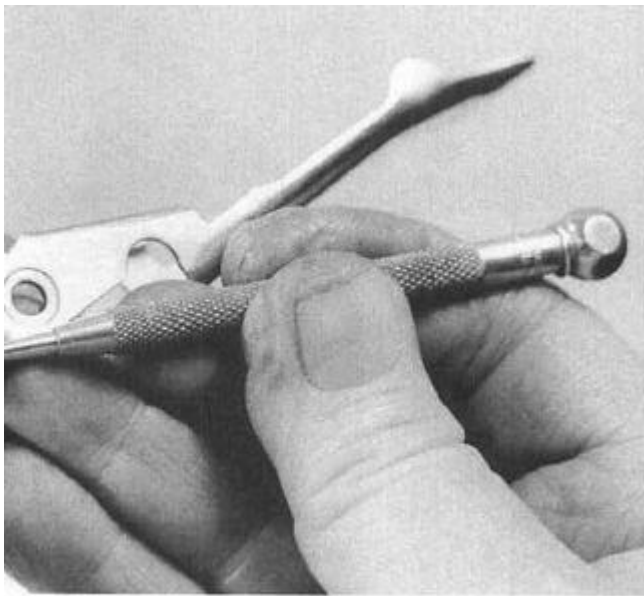
**19.** Push out the carrier pivot pin.





**20.** Remove the carrier upward.

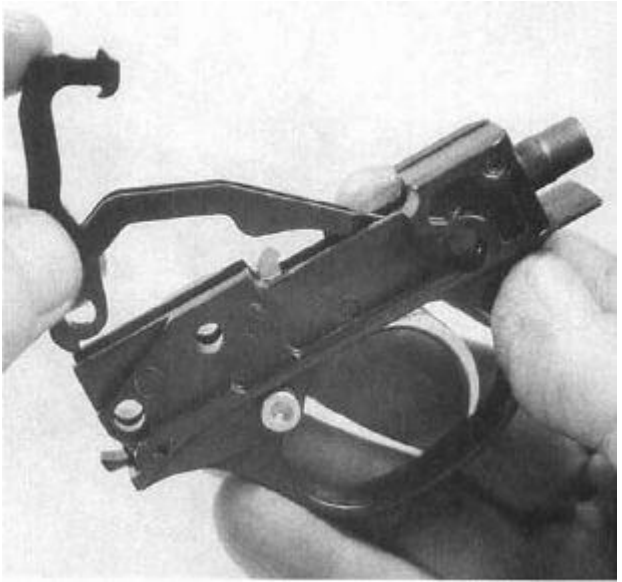
**21.** The carrier dog pivot is a riveted part, and it is not removed in normal takedown.



**22.** Move the safety to off-safe, restrain the hammer, pull the trigger, and ease the hammer

down to the forward position. Depress the hammer slightly at lower front, and push out the hammer pivot toward the left.





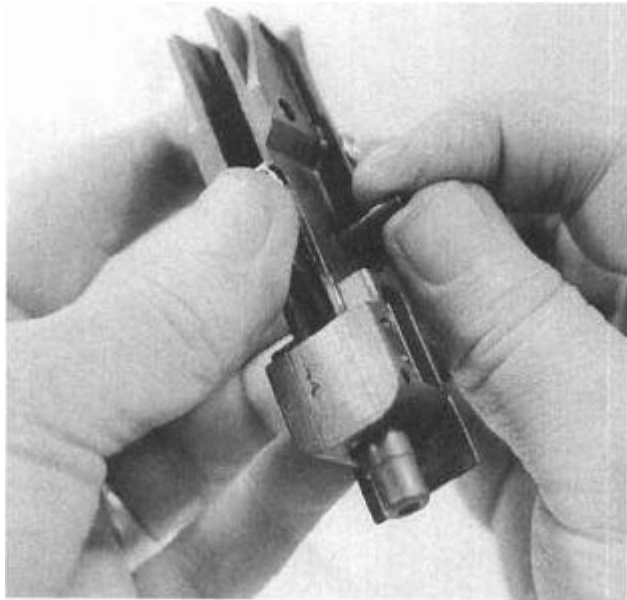
**23.** Remove the hammer and its two-piece spring strut upward. The strut arms are easily detached from the hammer.



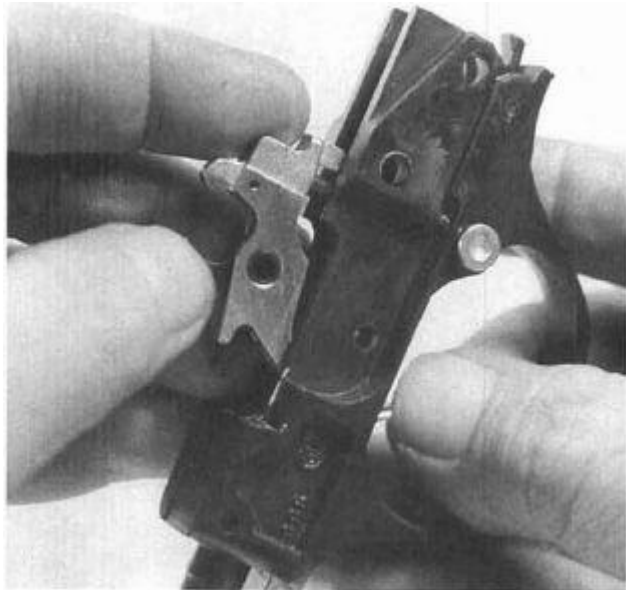
**24.** The hammer spring and plunger are contained in a cylindrical housing at the rear

of the trigger group. The housing is retained by a roll-type cross pin. After removal of the pin, the housing, spring, and plunger are taken off rearward. If this unit is removed, control the spring.

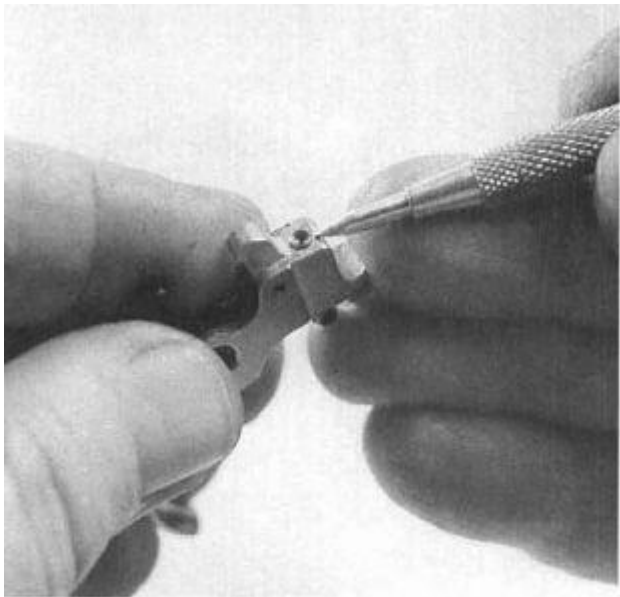
- 25.** Push out the trigger cross pin toward the right.



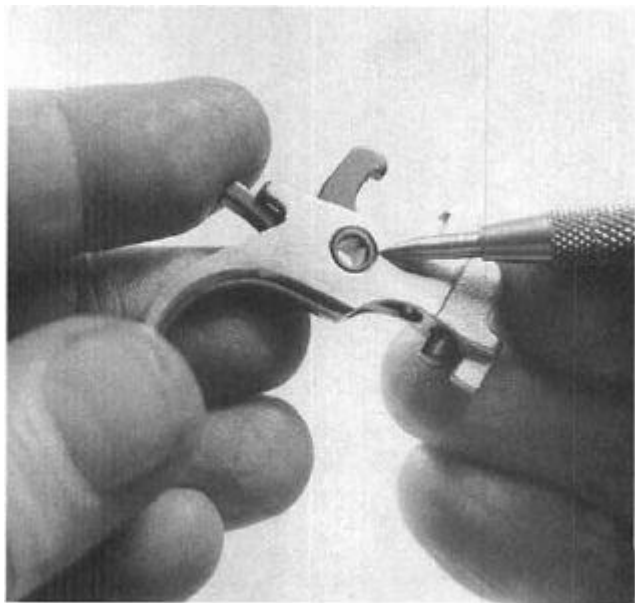
**26.** Remove the trigger assembly upward.







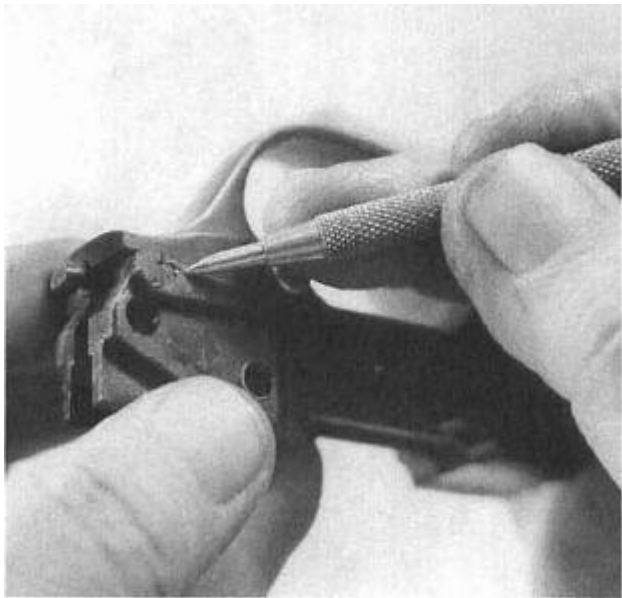
**27.** The trigger spring plunger is riveted at the top and removal should be only for repair purposes.



**28.** The secondary sear and its vertical plunger and spring at the front are retained by the

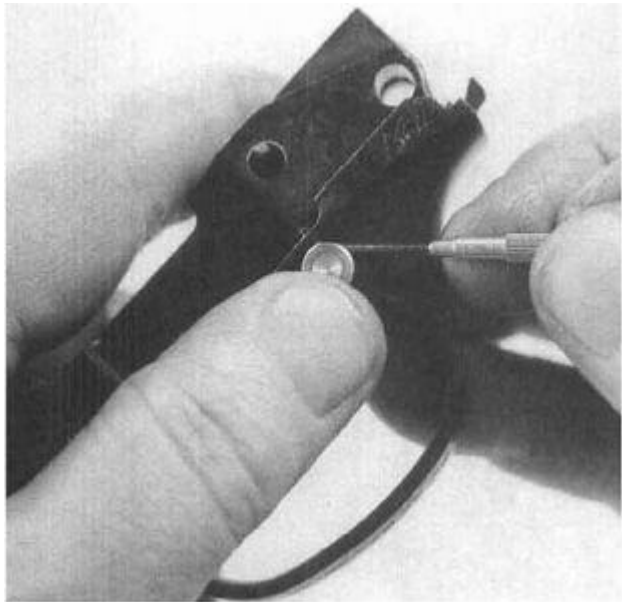
trigger pivot sleeve. If the sleeve is pushed out, the plunger and spring will be released, so restrain them.

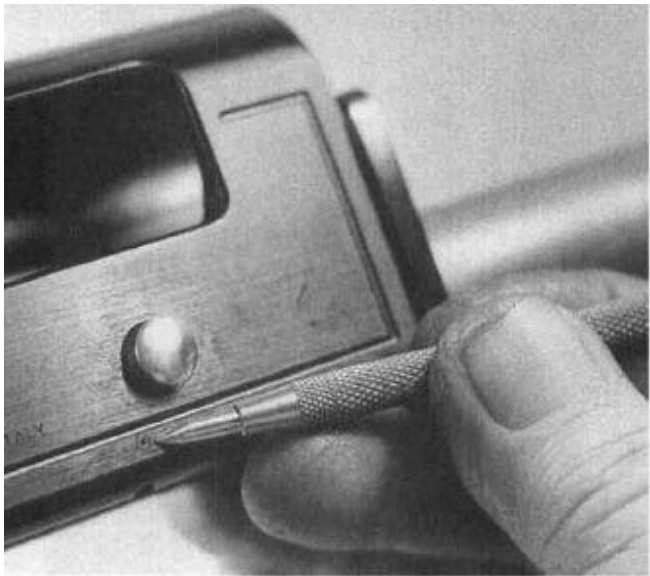
- 29.** The carrier stop button and its coil spring are retained by a cross pin at the front of the trigger group. With the pin removed, the button and spring are taken out toward the front. The pin is staked on both sides, and removal should be only for repair.



**30.** A plunger and spring position retain the safety button on the right side of the trigger group. Use a small tool to depress the

plunger upward, and push the safety out toward the left. Restrain the plunger and spring, as they will be released as the safety clears.





**31.** The combination shell stop and carrier latch should be removed only for repair purposes. A small roll pin

must first be drifted inward.

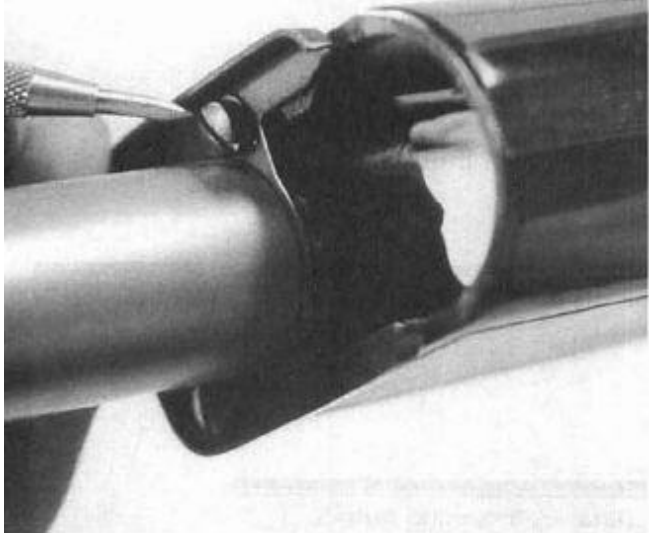


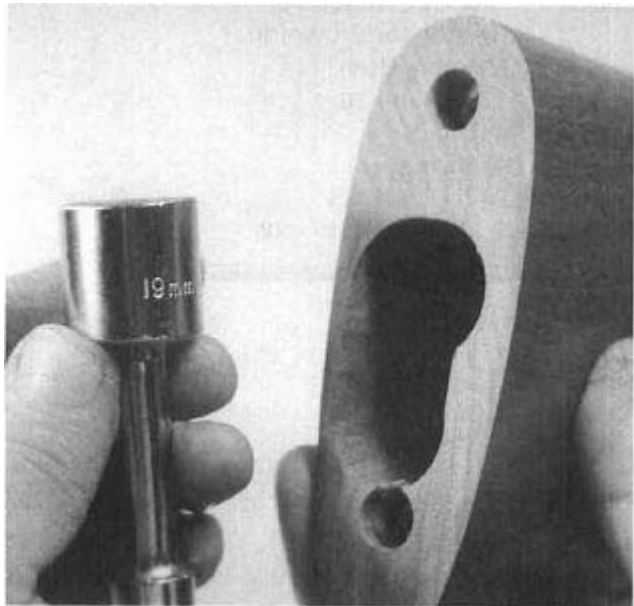
**32.** After the roll cross pin has been drifted out inward, the vertical pin that pivots the shell stop and carrier latch is



drifted out downward, using an aperture provided in the lower edge of the ejection port. The shell stop, latch, button, and spring are then removed inward. Again, this system should be removed only for repair.

- 33.** Two screws retain the forend baseplate at the front of the receiver. The magazine tube is not routinely removable.





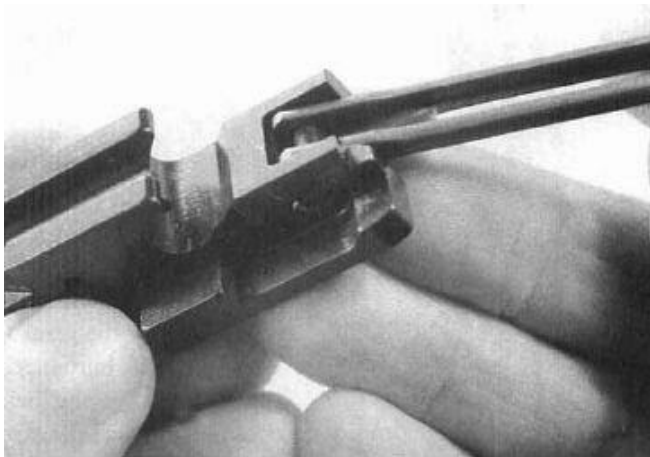
**34.** The rubber bultplate is retained by two Phillips screws. A 19mm socket is required for removal of the

stock mounting nut. Removal of the stock will give access to the bolt spring housing. If the bolt spring and plunger are to be removed, use caution and control the spring.

# Reassembly Tips:

1. When replacing the carrier spring system, do it in reverse of the takedown procedure. Engage the semicircular attachment with its recess in the carrier, put the base on the rear tip of the spring guide, and push the base forward and then into its recess.





**2.** If the bolt slide strut has been removed, be sure it is reattached as shown.

# **Browning Auto-5**





## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Browning Auto-5 also apply to the following guns:

**Remington Model 11**

**Remington Model 11B**

**Remington Model 11 E**

**Remington Model 11R**

**Remington 11A**

**Remington 11D**

**Remington 11F**

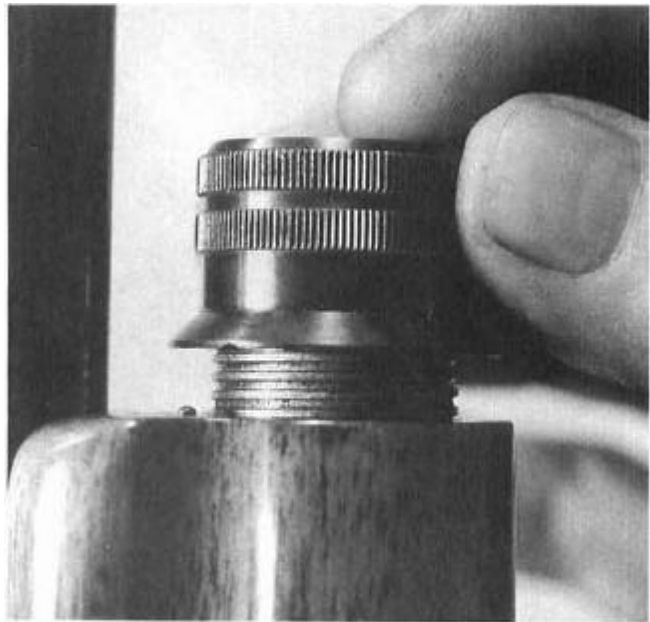
**Data:**            Browning Auto-5

<b>Origin:</b>	Belgium and/or Japan Fabrique Nationale,
<b>Manufacturer:</b>	Herstal, for Browning, Morgan, Utah
<b>Gauges:</b>	12,16, and 20
<b>Magazine capacity:</b>	4 rounds
<b>Overall length:</b>	47 inches
<b>Barrel length:</b>	24 to 30 inches
<b>Weight:</b>	6 1/8 to 8 1/4 pounds

Designed by the great John M. Browning just before the turn of the century, this fine gun was introduced in 1900. There have been tiny mechanical changes over the years, but the basic design is absolutely unchanged. At one time, both Remington and Savage made versions of the gun, during periods when the original Belgian model was not marketed in the U.S. The instructions will generally apply to the Remington Model 11s, but not to the Savage, which is mechanically different. In this revised edition, the Savage is covered separately.

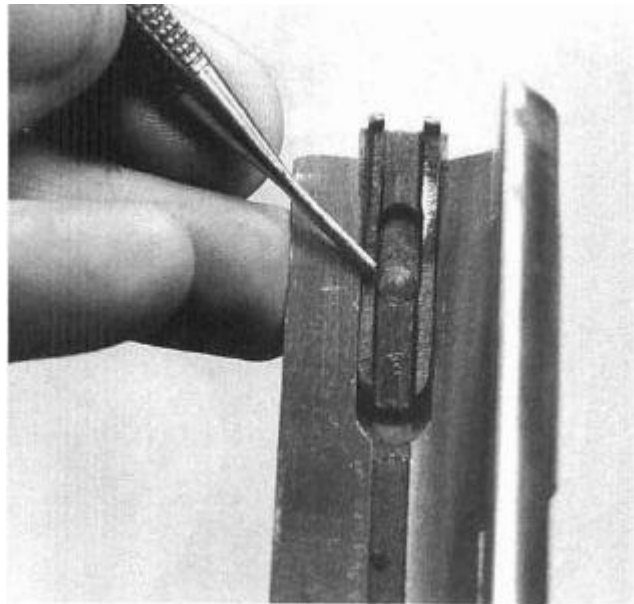
# Disassembly:

1. Pull back the operating handle to lock the bolt in the open position, and set the safety in the on-safe position. Depress the barrel slightly toward the rear, and unscrew and remove the magazine end cap. Take off the forend and barrel toward the front.



2. The ejector is mounted in a T-slot at the left rear of the barrel extension, and is

retained by a riveted cross pin. In some models, it is solidly fixed, and in others it has an opening at the center and slides to the rear. In both cases, it should be removed only for repair. The riveted pin is driven out inward.





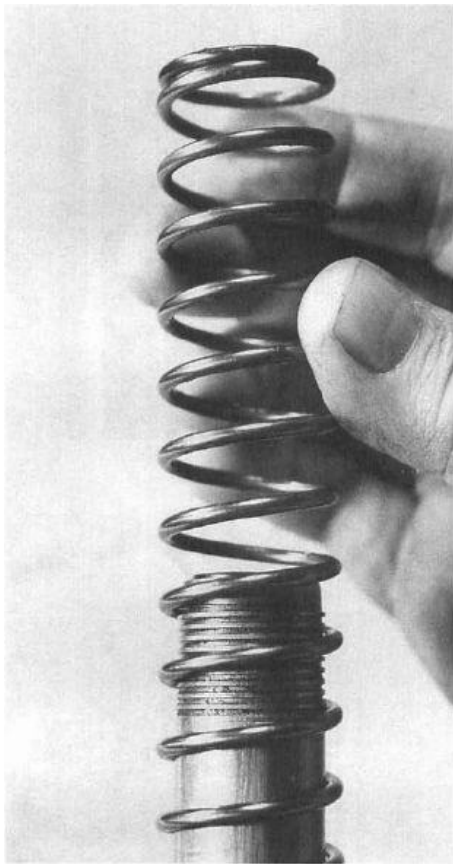


**3.** Remove the bronze friction

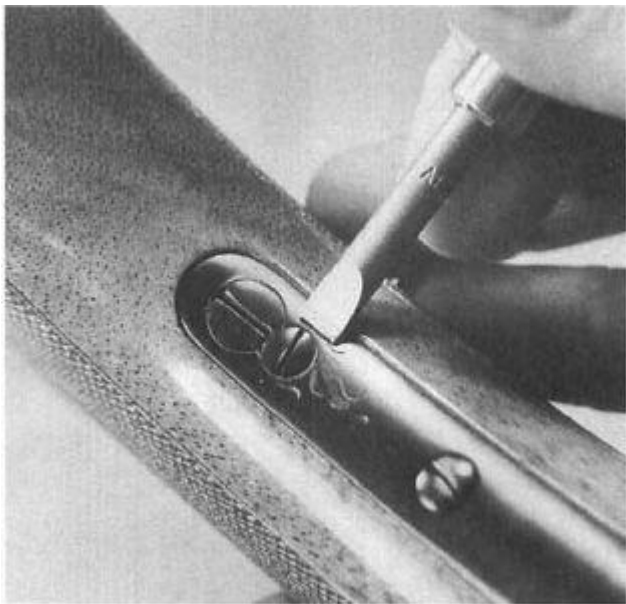
piece and its attached spring  
toward the front.



4. Remove the compression ring toward the front. If the gun has been used with light loads, the ring will be found "stored" at the rear of the recoil spring.
  
5. Remove the recoil spring toward the front.



**6.** Hold the operating handle to restrain the bolt, depress the carrier latch button, and ease the bolt forward to the closed position. Remove the lock screw, then the stock screw, in the reartip of the lower tang. It should be noted that for all screws on this gun, you will need screwdrivers with very thin blades. If necessary, alter some screwdrivers for this purpose. Remove the buttstock toward the rear. If it is very tight, bump the front of the comb with the heel of the hand or a rubber hammer.



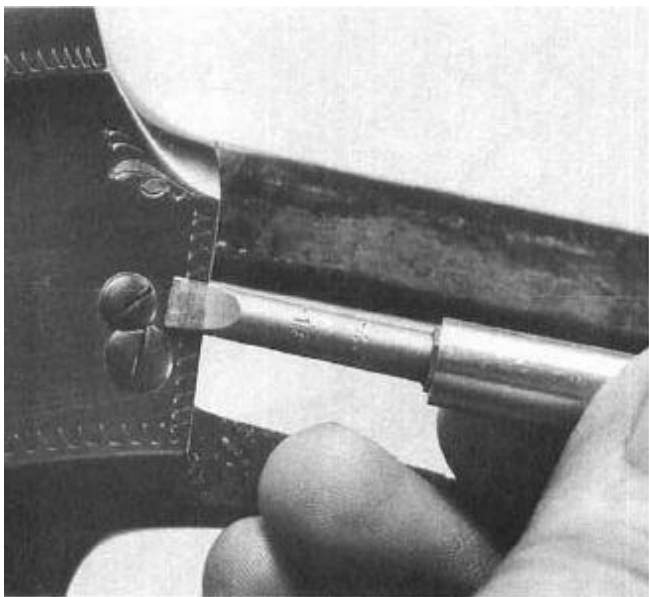
7. Remove the lock screw, then the main screw on the left side of the receiver, just above the

front of the trigger housing.



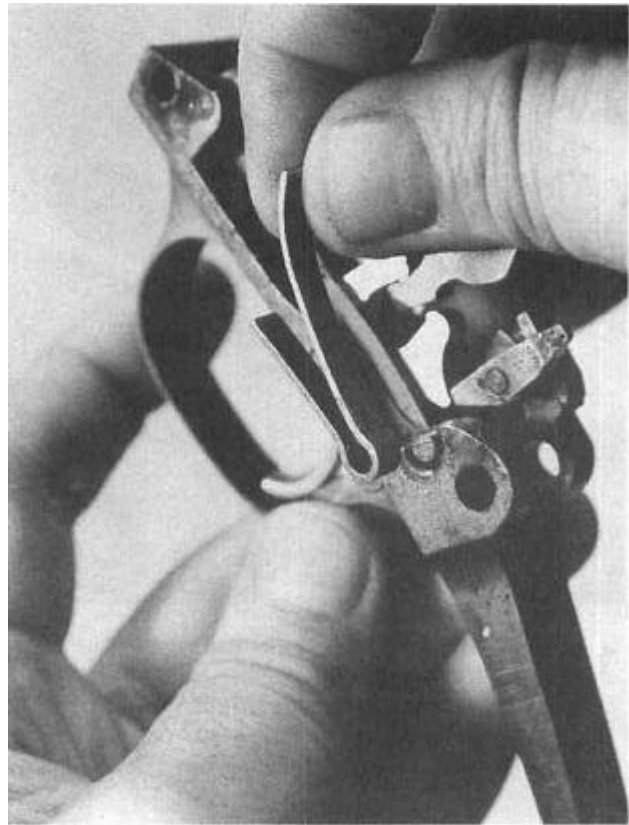


- 8.** Remove the lock screw, then the main screw on the left side at the lower rear of the receiver.



**9.** Remove the trigger group downward.

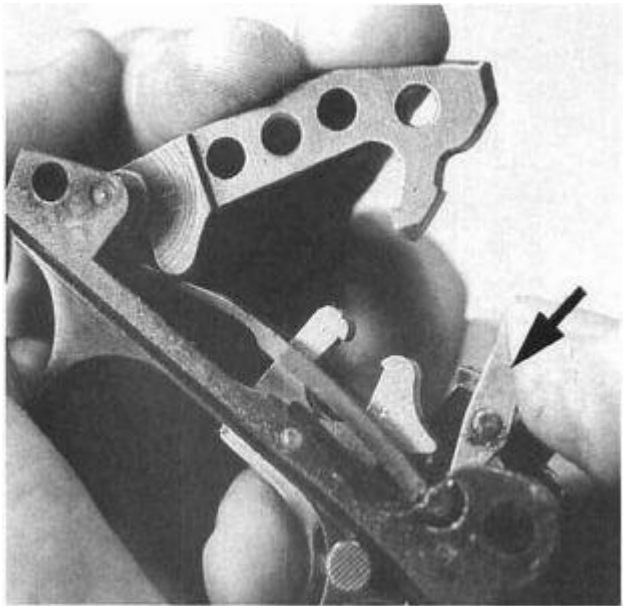




**10.** Remove the carrier spring from its post on the left side of the trigger housing. Note that on early guns, this spring will be mounted on a post inside the receiver, and must be detached at the front, then moved off its post inward for removal.

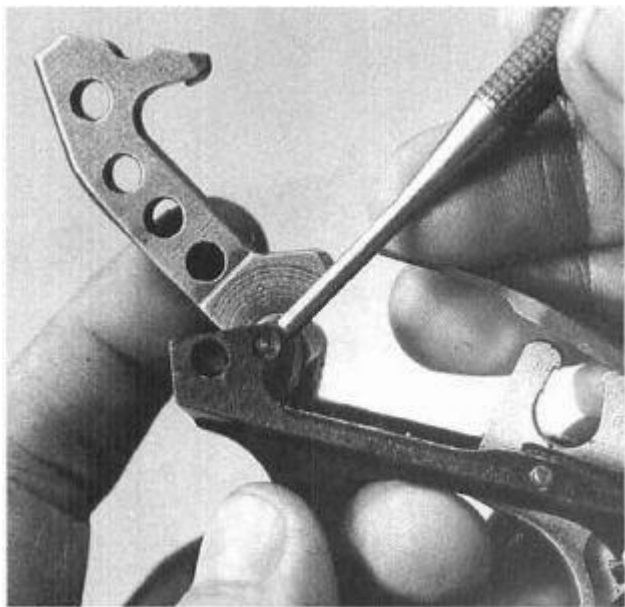
**11.** Move the safety to the off-safe position, tip the safety sear (arrow) forward, restrain the hammer, pull the trigger, and ease the hammer forward until its roller disengages from the

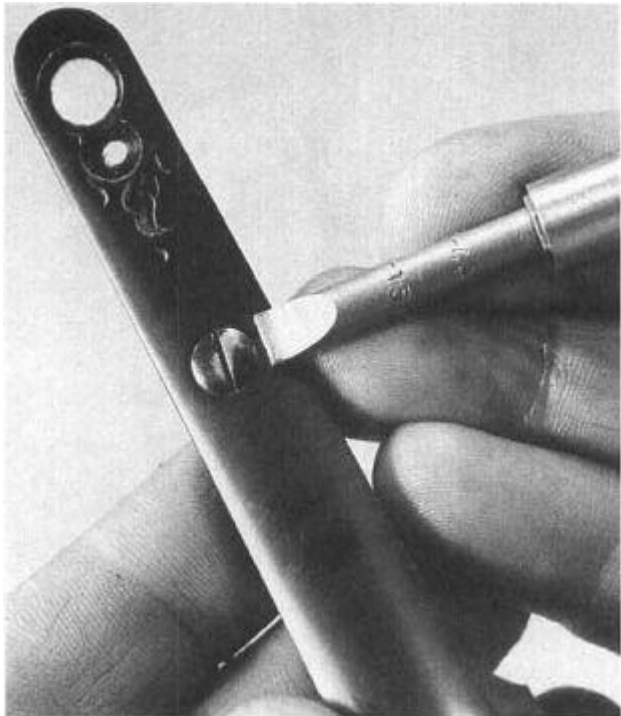
tip of the hammer spring.



**12.** Drift out the hammer cross pin,  
and remove the hammer from

the trigger housing.

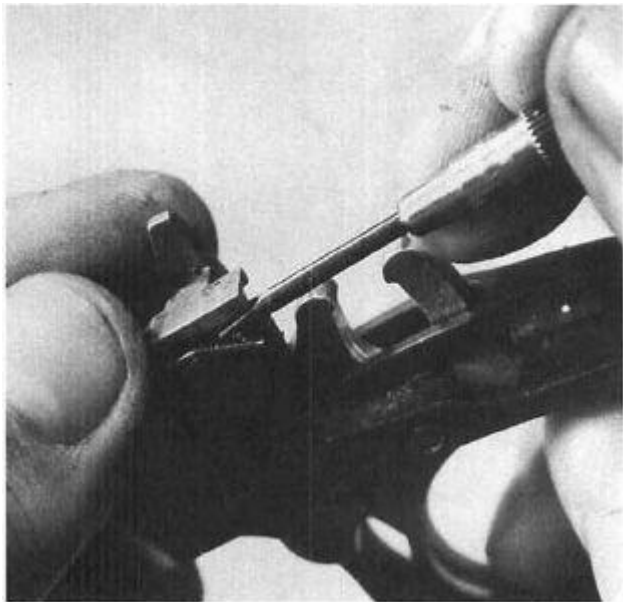




**13.** Remove the hammer spring

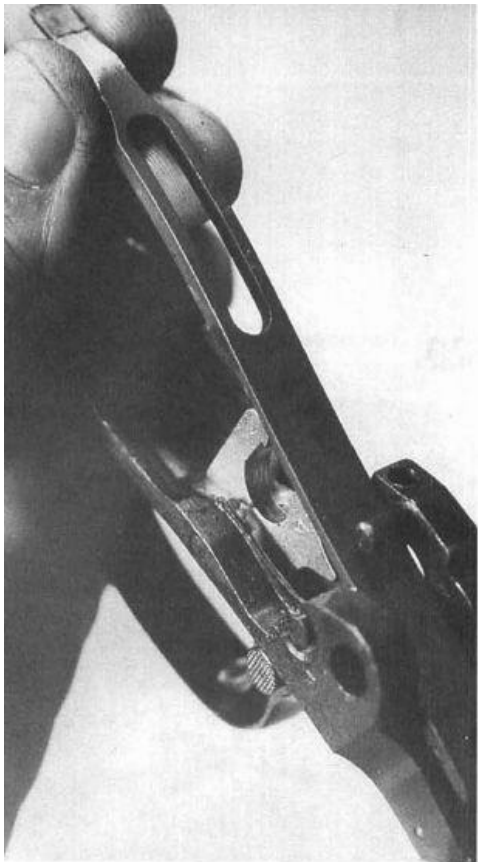


screw, located on the underside of the rear tang of the trigger housing. Note that the spring is not removed at this time.



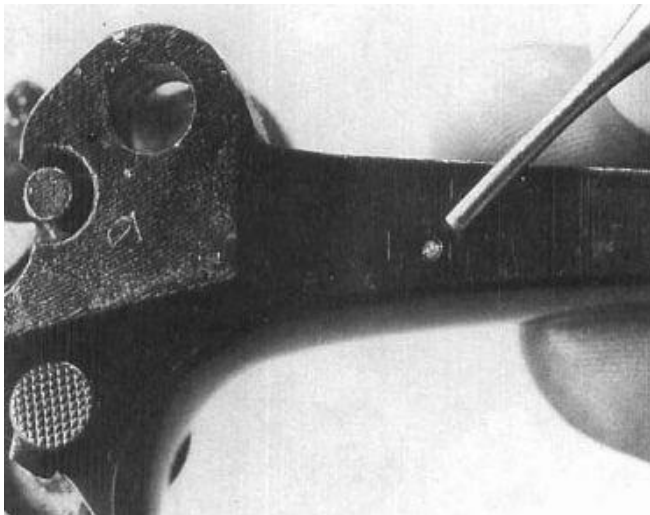
**14.** Insert a small screwdriver at the front of the safety sear to depress the plunger and spring, and remove the safety

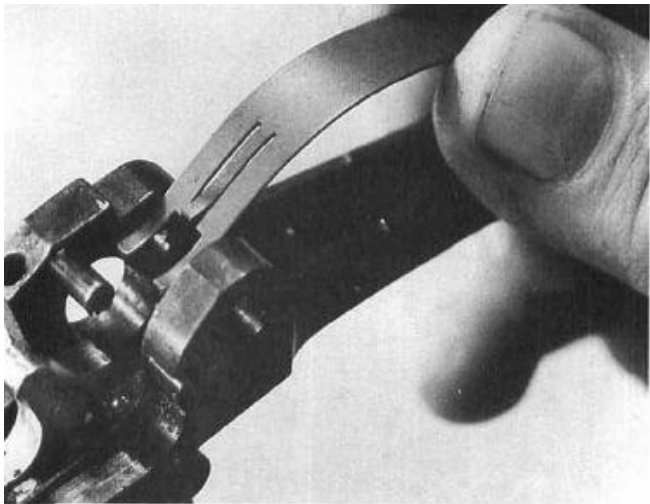
sear toward the left. Caution: Keep the plunger under control, ease it out, and remove the plunger and spring upward.



**15.** Lift the hammer spring at the front, and remove it upward and toward the front.

**16.** Push out the small cross pin in the rear tang of the trigger housing. Removal is easier if the trigger spring is slightly depressed in the vicinity of the pin.





**17.** Remove the trigger spring upward and toward the rear.

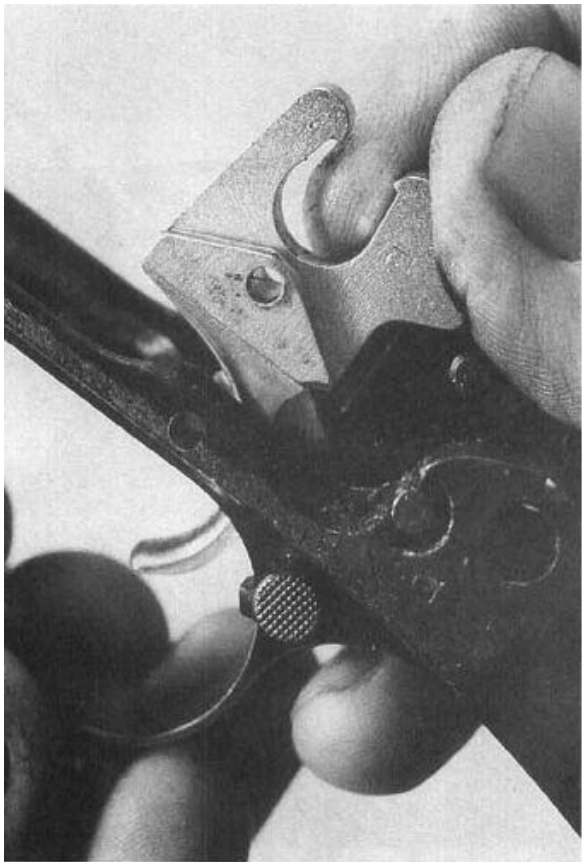
**18.** Invert the trigger housing over the palm of the hand, and

move the safety to free the detent ball. If it does not drop out easily, tap the housing with a nylon hammer.

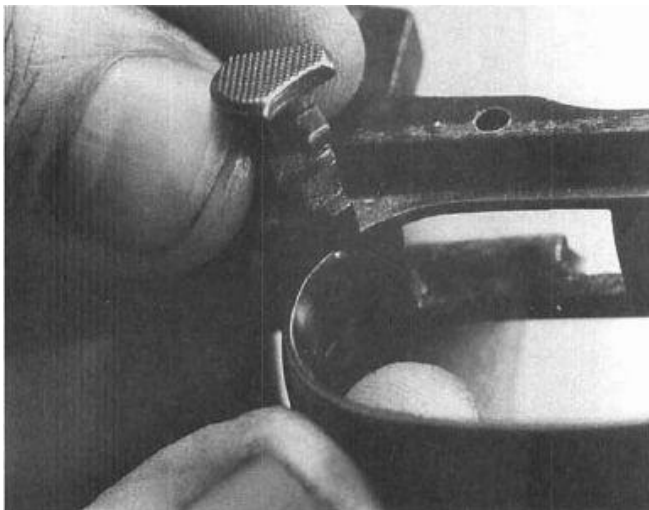




**19.** Drift out the trigger cross pin,  
and remove the trigger  
upward.



**20.** Remove the safety toward the right.

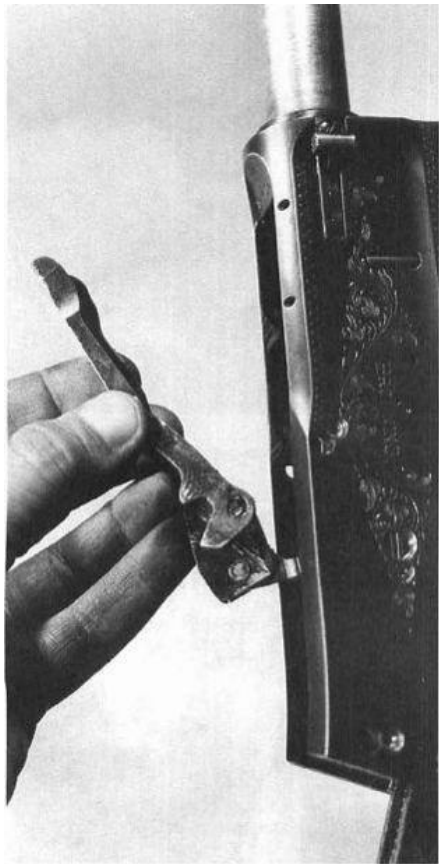


**21.** Remove the lock screw and the large carrier pivot screw on each side of the receiver.



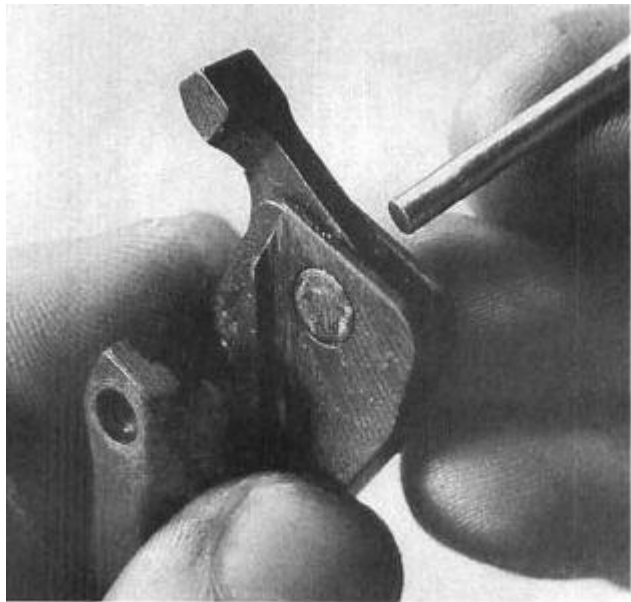


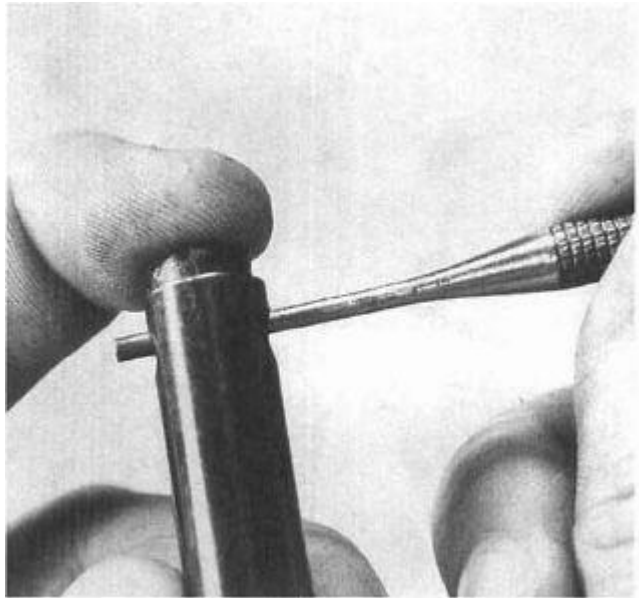
**22.** Remove the two sections of the carrier down-ward. Note that on early guns. the carrier will be a single part.





**23.** The dog and its plunger and spring are retained on the rear section of the carrier by a cross pin that is riveted in place, and this should be removed only for repair. If it is necessary, drift out the pin inward (toward the left), and be sure the carrier section is well supported.





**24.** Restrain the bolt spring plug at the rear of its housing, push out the cross pin, and remove the plug, spring, and follower

toward the rear. Caution: The spring is powerful and is under tension. Control it, and ease it out. It is possible to also unscrew the housing (tube) from the rear tang of the receiver, but this is not advisable in normal takedown.

- 25.** Move the bolt back to the position shown, until the locking block latch pin is aligned with the exit cut in the lower edge of the ejection port. Insert a drift punch through the access hole in the left side of the receiver, and

push out the pin toward the right.



**26.** Removal of the pin will

release the locking block latch  
from the bottom of the bolt.  
Remove the latch and its  
spring.

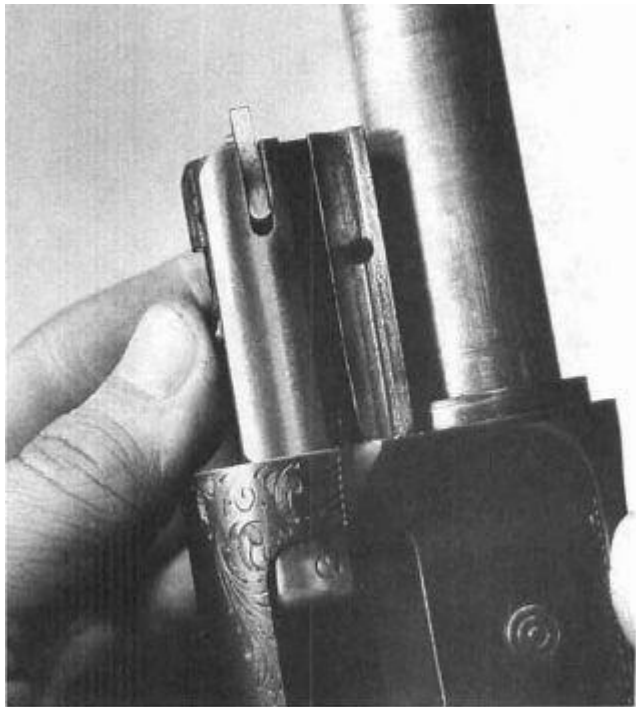




**27.** Move the bolt to the rear,  
swinging the link bar out-

ward. Restrain the operating handle, and move the bolt forward, leaving the handle at the rear.





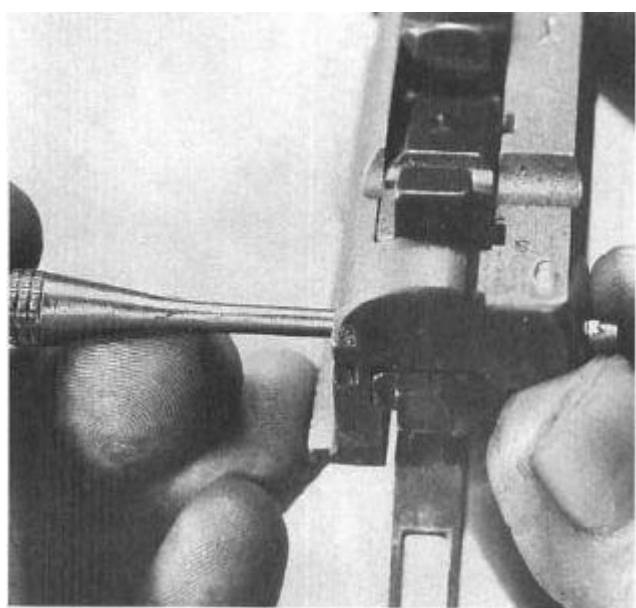
**28.** Swing the link bar back inside,  
and remove the bolt assembly

toward the front.

- 29.** Move the operating handle unit forward, and remove it from the ejection port.



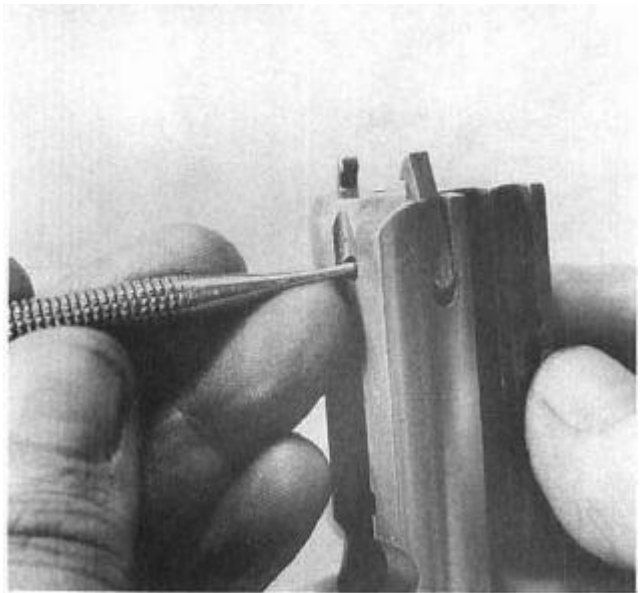
**30.** Drift out the cross pin at the rear of the bolt toward the right, and remove the firing pin toward the rear.





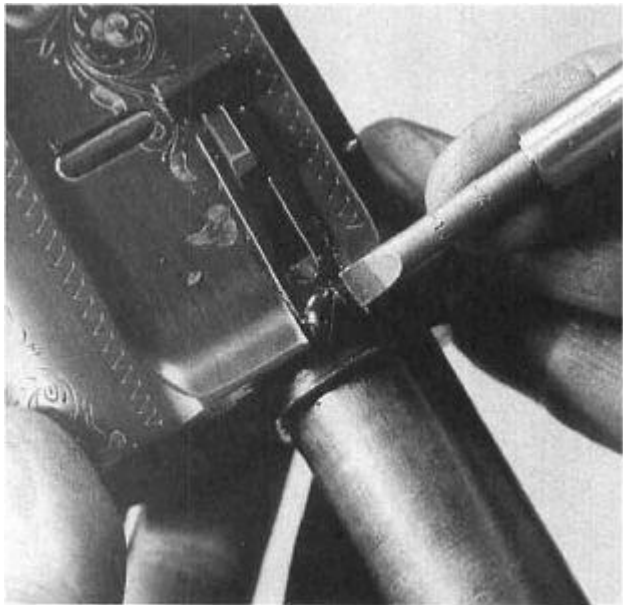
**31.** Push the front of the link bar upward, tipping the locking block out the top of the bolt, and remove the assembly

upward. Drifting out the cross pin at lower rear of the locking block will release the link bar for removal.



**32.** The extractors and their coil springs are retained on each side at the front of the bolt by vertical pins. Drift out the pins downward, and take off the extractors and springs toward each side.

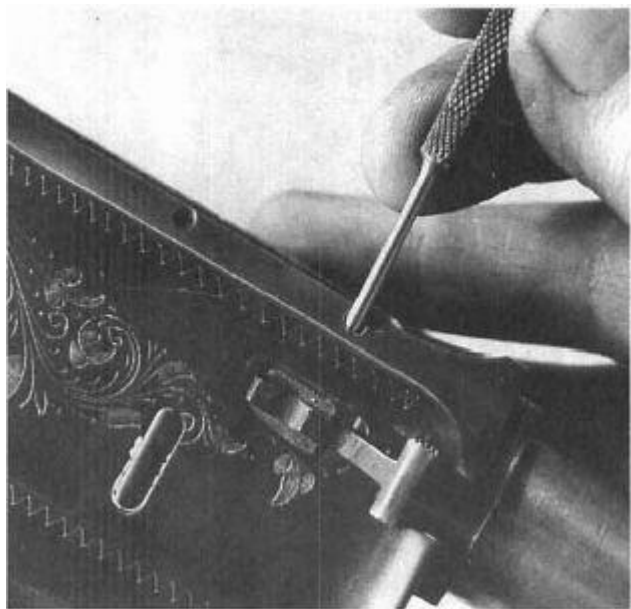
**33.** Remove the magazine cut-off spring screw, located on the left side at the forward edge of the receiver, and take off the spring toward the front.

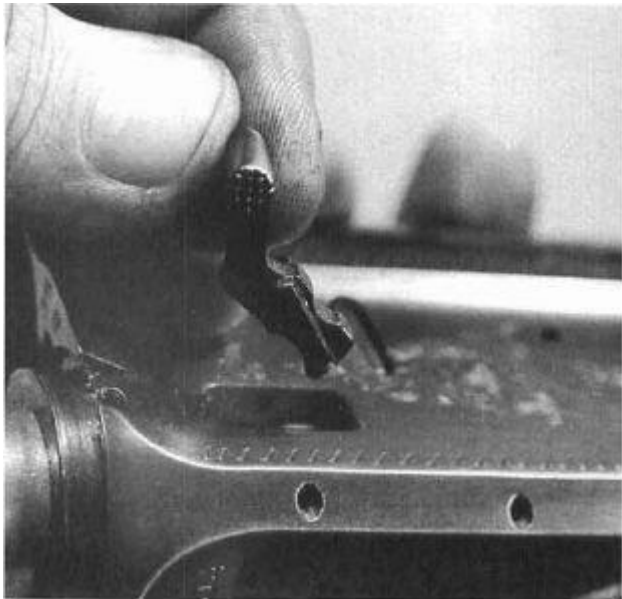


**34.** On early guns, the magazine cut-off, carrier latch, and shell stop are retained by vertical screws set in the lower edge



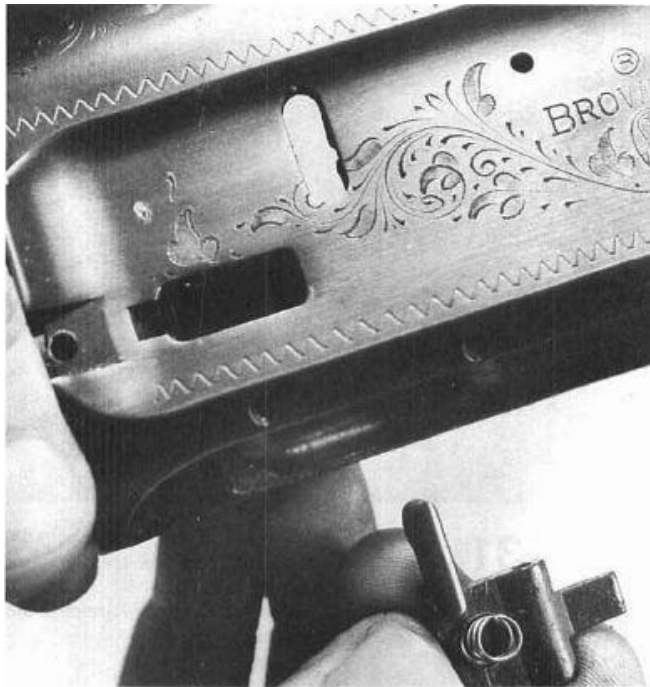
of the receiver. In later guns, such as the one shown, these parts are retained by roll pins. For removal, the pins are drifted upward, and exit holes are provided inside the receiver. Use a roll pin punch to drift the magazine cut-off pin upward.





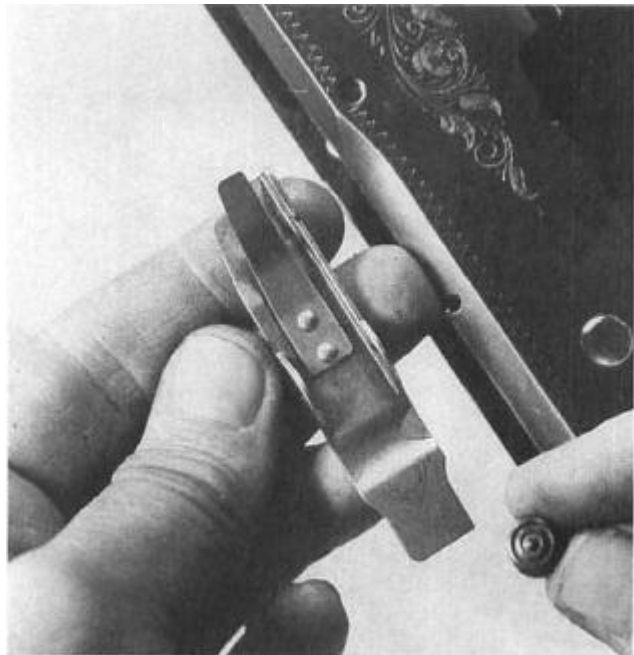
**35.** Remove the magazine cut-off toward the left.

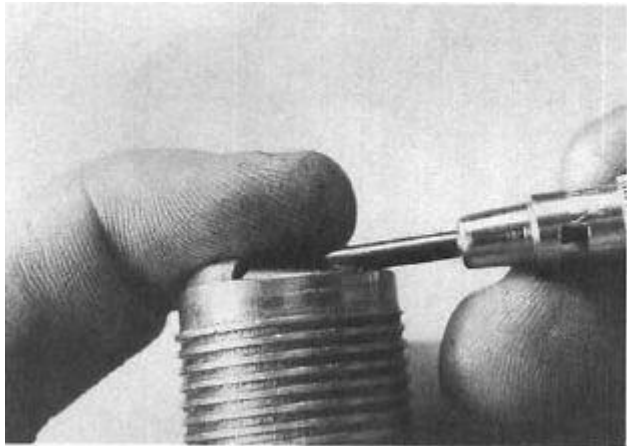
**36.** Drift out the shell stop pin upward, and remove the shell stop and its spring from inside the receiver.



**37.** Drift out the carrier latch pin upward, and take out the latch

and its release button from inside the receiver. Note that the carrier latch spring is riveted in place, and is not routinely removed.





**38.** Insert a screwdriver in the open center of the magazine spring retainer, and pry the retainer out, moving the screwdriver to raise it equally around its edge. Caution: The magazine spring is under

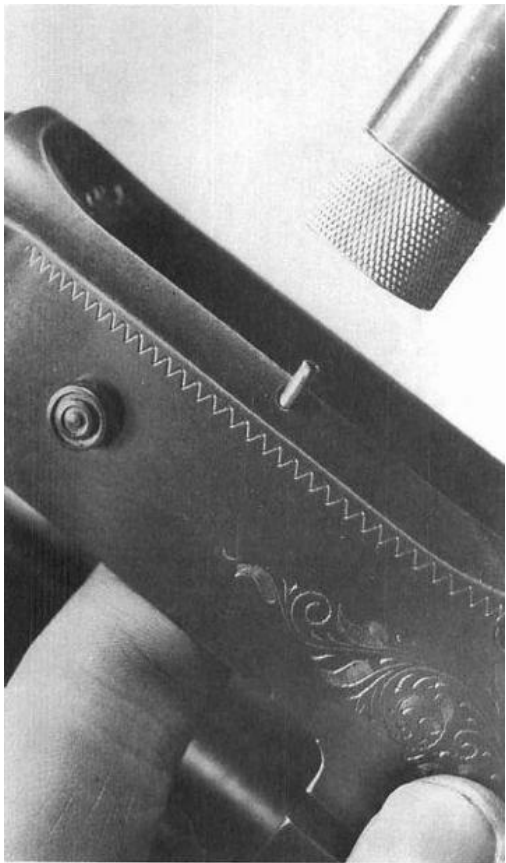


tension, so control the retainer and ease it out. Remove the spring and follower toward the front. Removal of the magazine cut-off spring screw will have freed the magazine tube, and it can be unscrewed from the receiver. These are tightly fitted, though, and are best left in place in normal takedown.

# Reassembly Tips:

1. When replacing the pivot pins for the carrier latch, shell stop, and magazine cut-off, drive them in the same direction they were removed, upward. Take care that the parts are properly aligned before driving the pins into place. Insert a drift punch to insure alignment, then hold the parts in place with a fingertip while the pins are inserted. Be sure the pins are not driven too deeply, as their upper ends

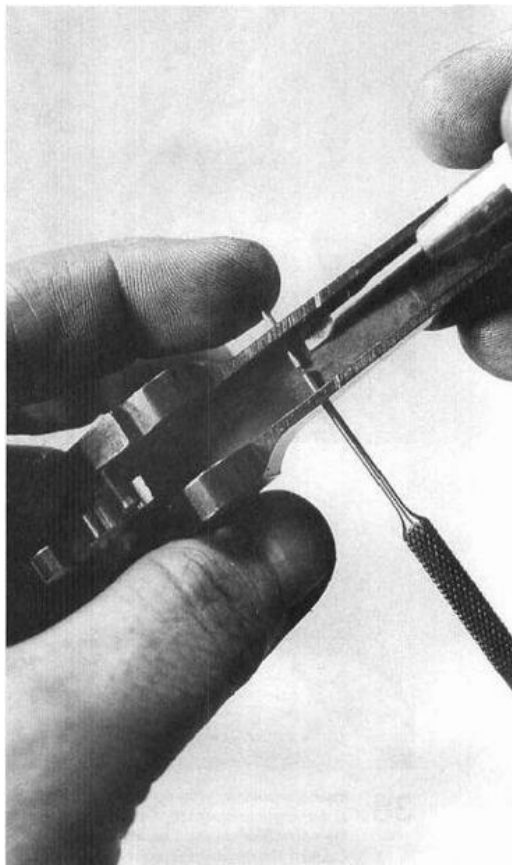
can enter the bolt track.



**2.** In the later guns that have the two-piece carrier, the parts may be difficult for the amateur. In this photo, the parts are shown in the proper position.



**3.** When installing the combination trigger and safety detent spring, use a tool to depress the spring at the cross pin location, and insert a drift punch to hold the spring down while putting in the cross pin. It will be necessary to depress the spring on the other side as the pin is inserted, and the end of the cross pin must also be depressed as it enters the hole on the other side of the tang.

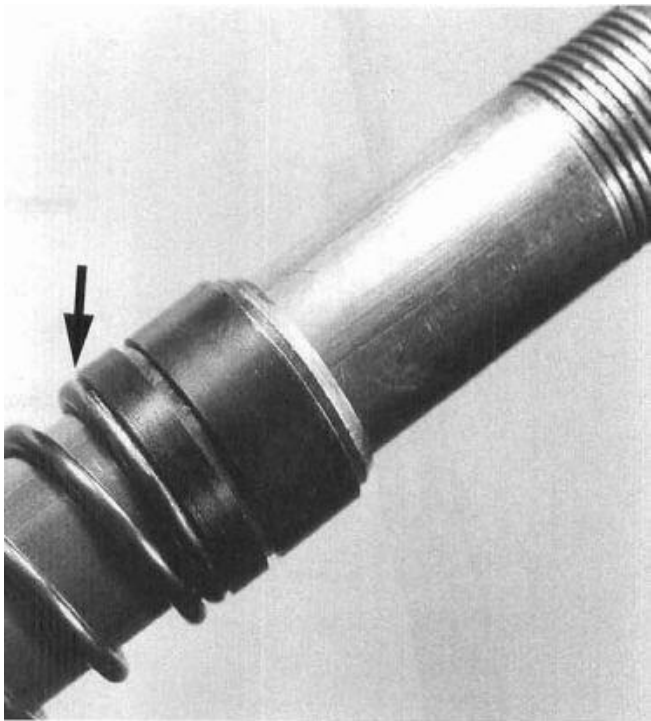




4. When installing the trigger group in the receiver, insert the group as shown, replacing the rear cross screw first. As the group is swung up into position for insertion of the front cross screw, use a tool at the rear to tip safety sear forward, to insure that its upper arm enters the open track in the center of the link bar.



**5.** When replacing the compression ring (arrow) and friction piece at the front of the recoil spring, these parts should be in the position shown for medium to heavy loads, with the concave inner surface of the ring to ward the front. For light loads, place the reversed ring at the rear of the spring, next to the receiver.



# **Browning B-2000**



**Data:** Browning B-2000

**Origin:** Belgium

**Manufacturer:** Fabrique  
Nationale,  
Herstal, for  
Browning,  
Morgan, Utah

**Gauges:** 12 and 20

**Magazine  
capacity:** 4 rounds

**Overall  
length:** 46 inches  
(with 26-inch  
barrel)

**Barrel length:** 26 to 30 inches

**Weight:** 7 1/2 pounds

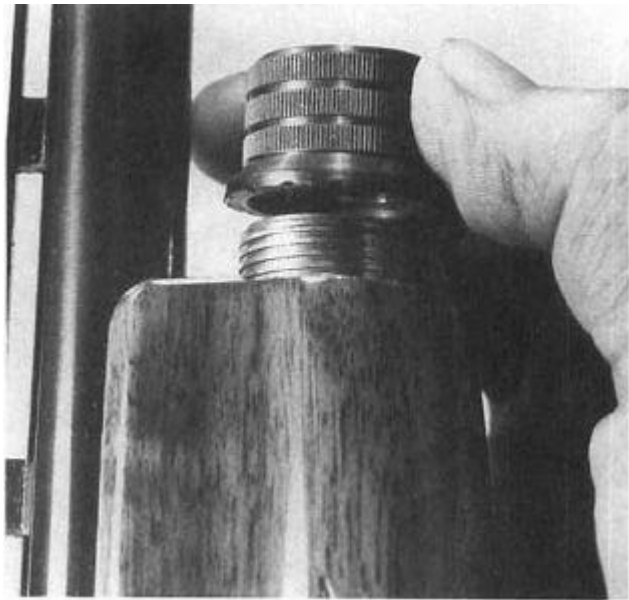
Introduced in 1975, this sleek autoloader was Browning's first entry in the field of gas-operated shotguns. While all guns of this type have operating systems that are somewhat similar, the B-2000 gas mechanism has some different features, including a valve that regulates the ported gas, allowing the use of a wide range of loads. For those who are accustomed to the large and simple parts of the venerable Auto-5, the takedown may have some surprises.



There is an inter-dependence of small parts, and the amateur should proceed with caution.

## **Disassembly:**

- 1.** Pull back the operating handle to lock the bolt in the open position, and set the safety in the on-safe position. Unscrew the magazine end cap, and remove it. Take off the barrel and forend toward the front, and remove the forend from the barrel toward the rear.



2. Restrain the gas piston at the front of the magazine tube, and push out the gas piston bar toward either side. Caution:

The piston is under spring pressure, so control it and ease it out.

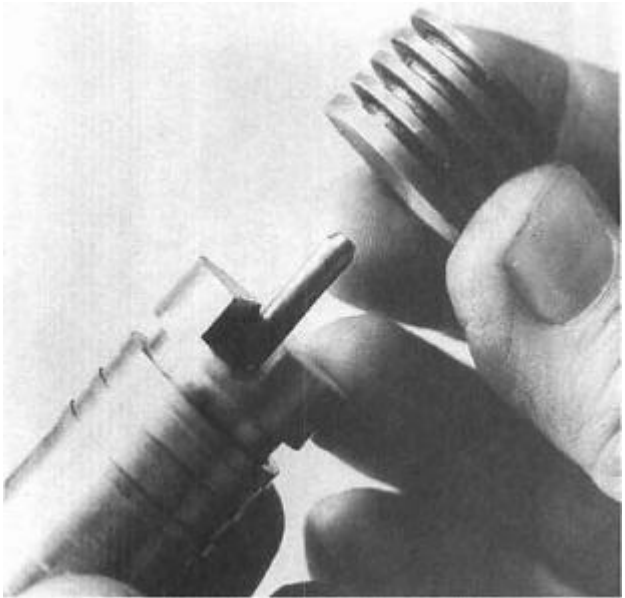




3. Slowly release the spring tension, and remove the gas piston assembly and its spring toward the front.



4. Remove the gas cylinder plug from the front shaft of the gas piston valve.







**6.** Remove the gas piston valve

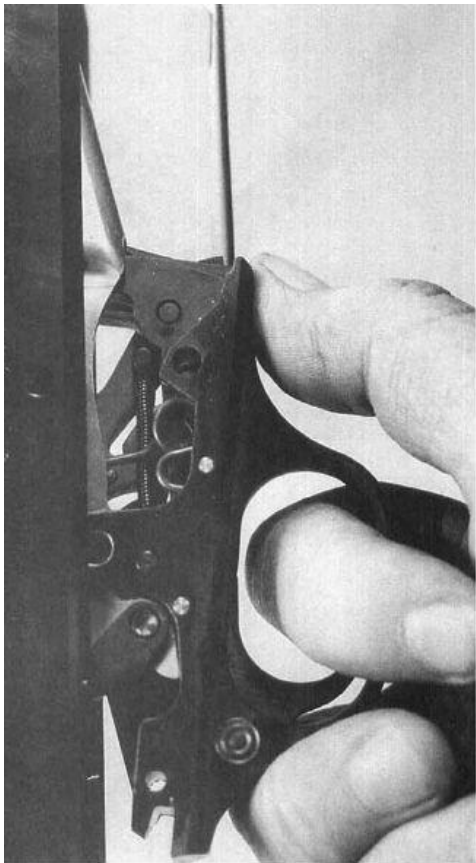
toward the rear..



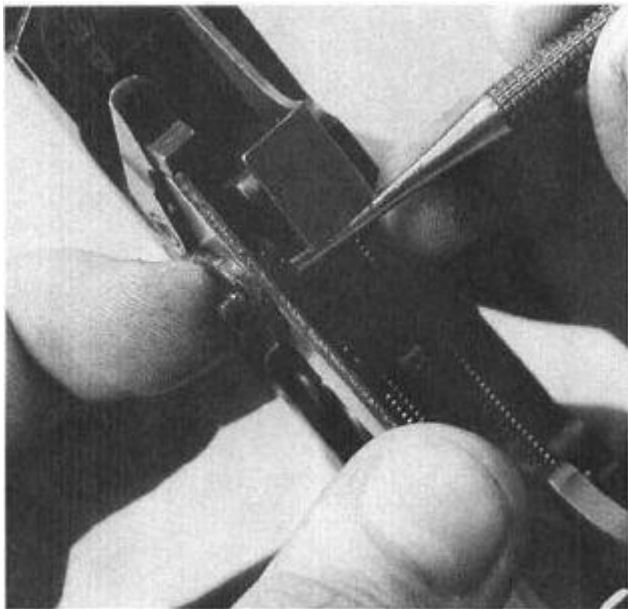
7. Restrain the bolt, operate the carrier latch, and ease the bolt forward to the closed position.

With a non-marring tool, push out the trigger group retaining cross pin toward either side.

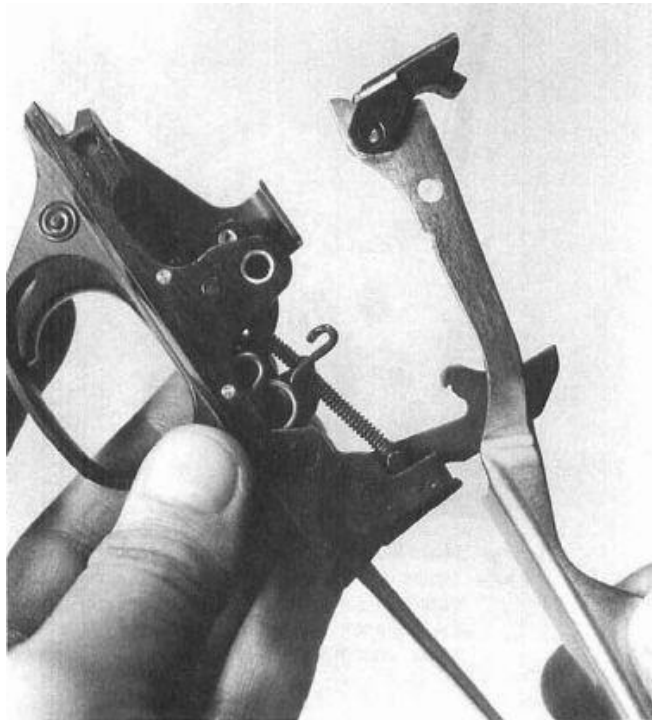
8. Move the bolt about 1-1/2 inches toward the rear, depress the carrier latch, and move the guard unit a short distance toward the front. Tip the front of the trigger group slightly downward, ease the bolt back forward, and remove the trigger group from the bottom of the receiver.



9. Restrain the carrier, and push out the carrier pivot pin.



- 10.** Remove the carrier upward. Note that the carrier dog and its plunger and spring are retained on the rear arm of the carrier by a cross pin that is heavily riveted in place, and removal is not advisable unless necessary for repair.

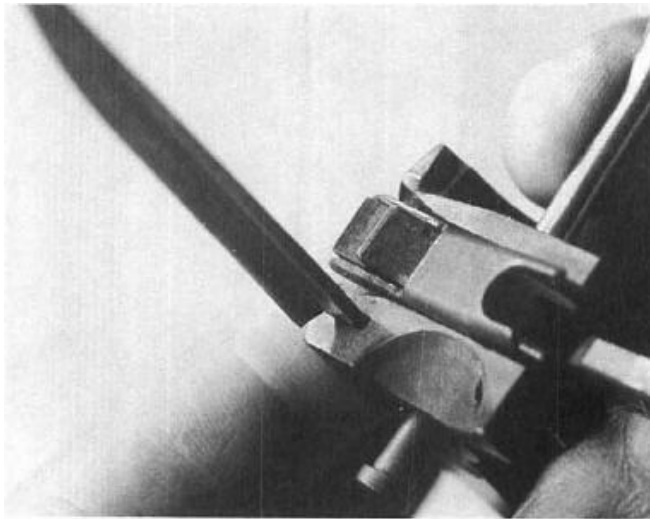


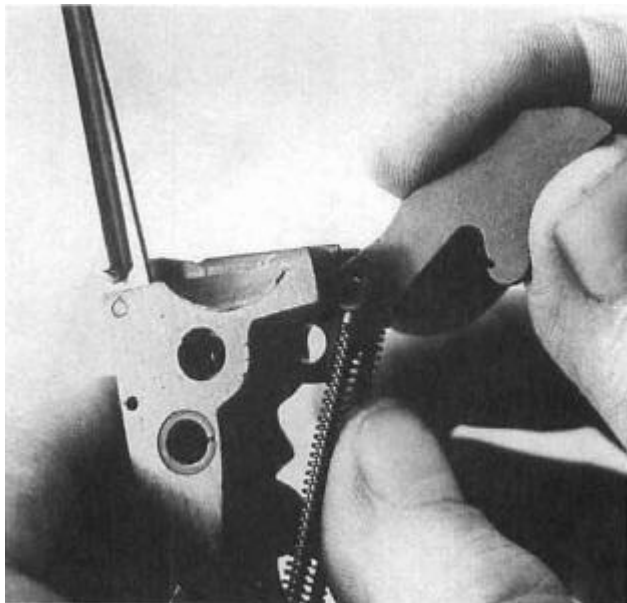




**11.** Remove the carrier spring from its recess on the right side of the trigger group.

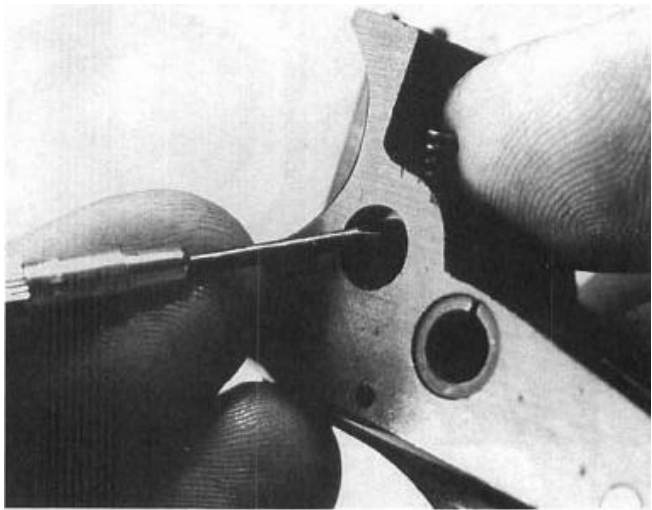
**12.** Move the safety to the off-safe position, restrain the hammer, pull the trigger, and ease the hammer down to the fired position. Place a thumb on top of the twin hammer springs to restrain them, and push out the hammer pivot pin toward the left.



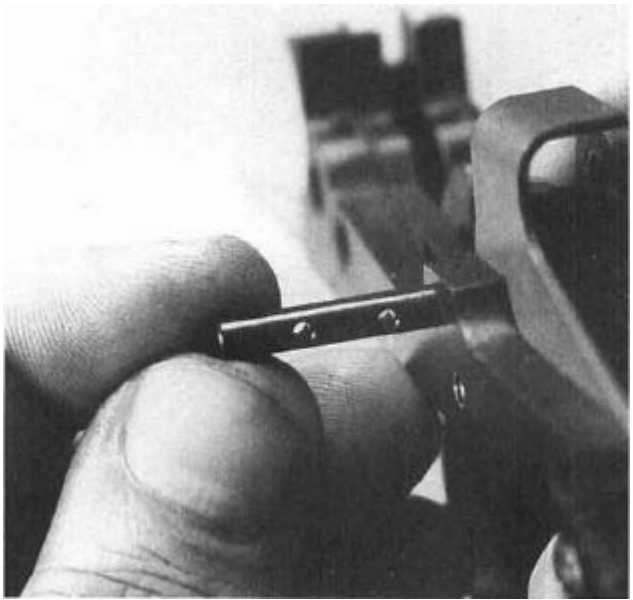


**13.** Move the hammer upward until its spring base pin climbs over the edge of the front projection of the guard unit,

relieving the spring tension. Remove the hammer, springs, and guides upward. The spring system is easily removed from the hammer.

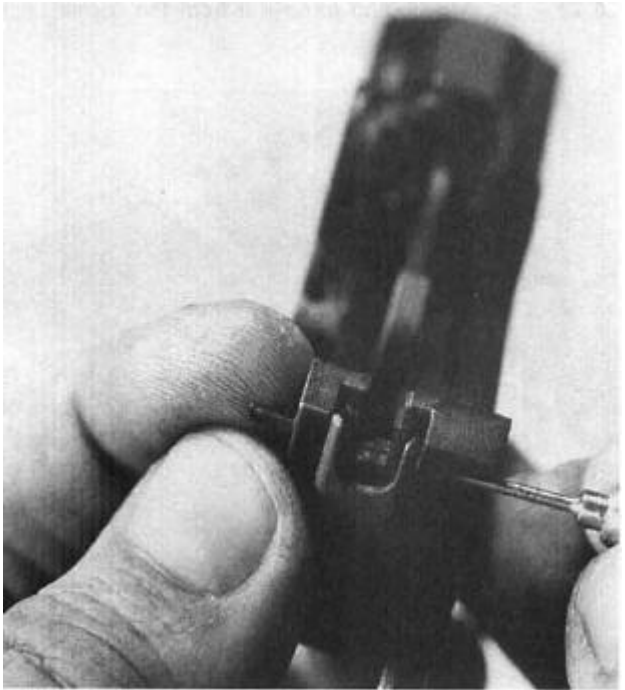


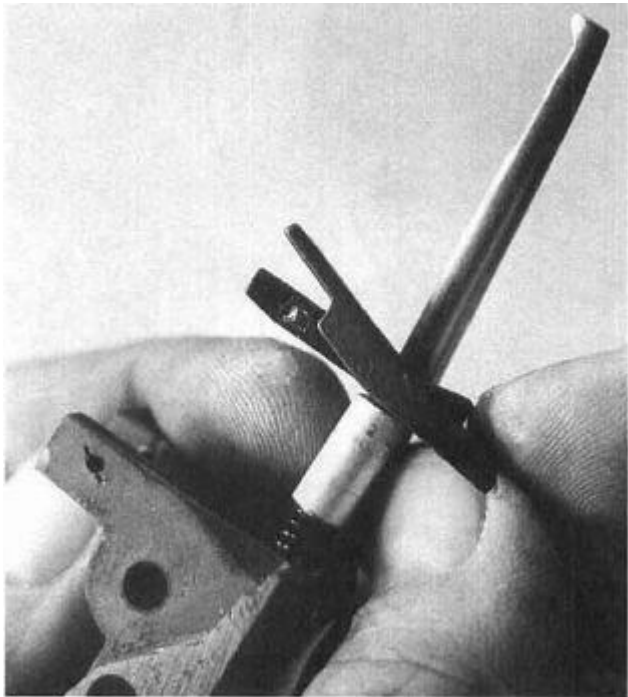
- 14.** Removal of the hammer pivot pin will have freed the shell stop spring. Insert a small screwdriver to lift it out upward, and remove it.
  
- 15.** Remove the cross pin that is the rear base for the twin hammer springs toward either side.



**16.** Drift out the small cross pin at the upper front of the trigger group, using a punch of very small diameter. Restrain the

carrier latch assembly as the pin is removed.

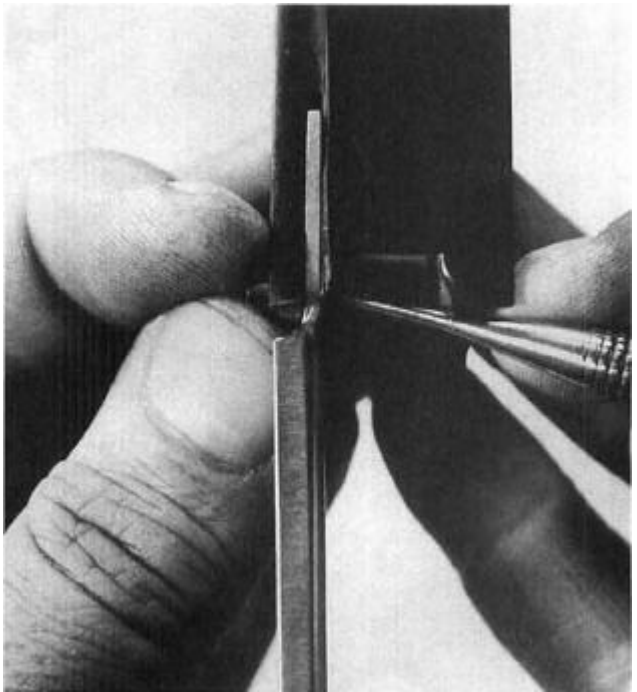




**17.** Remove the carrier latch assembly, and its spring and



plunger, toward the front. The carrier latch trip can be separated from the latch by drifting out its small cross pin.



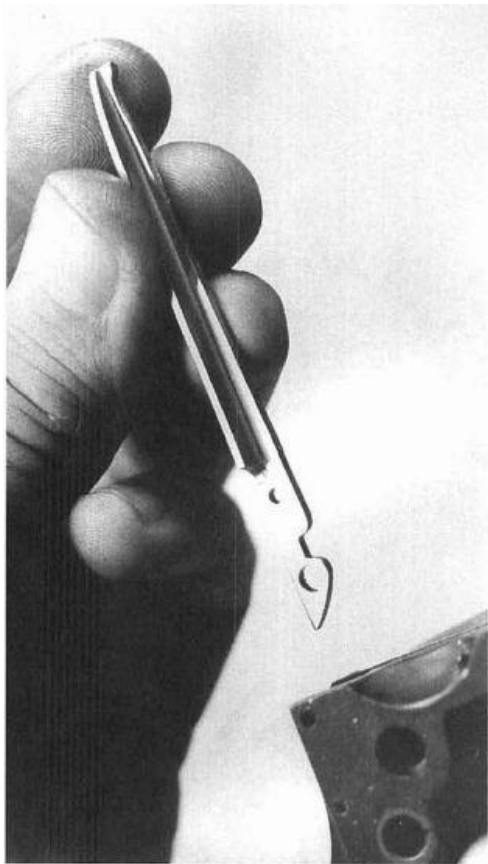
**18.** Removal of the carrier latch will give access to the shell

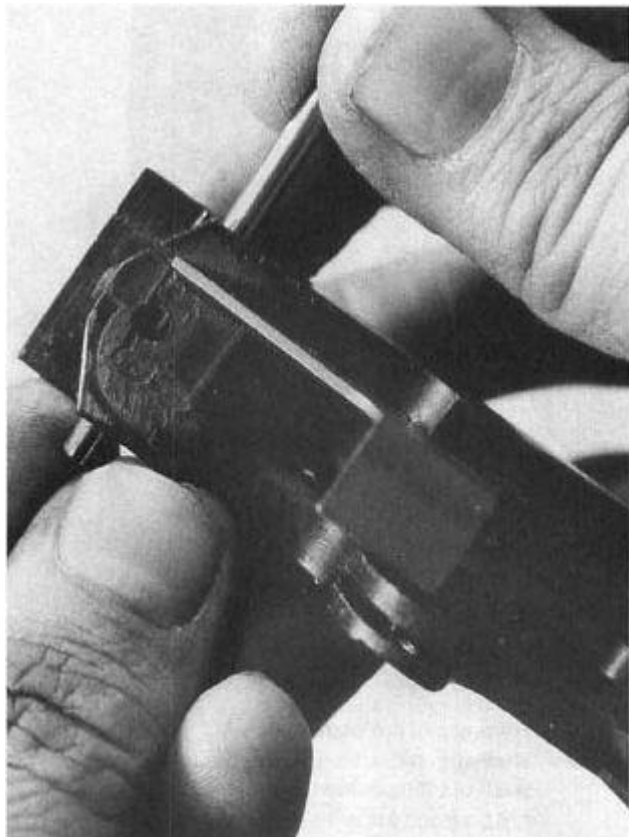
stop pin. Use an angled punch at the front to push out the pin toward the left. The shell stop will not be freed for removal. See the [next step](#).

- 19.** Using a very small punch, drift the shell stop limit pin inward, and remove it from the carrier latch spring recess.



**20.** Remove the shell stop toward the front.





**21.** Drift the trigger shield cross pin toward the right, just far enough to clear the rear of the shield.

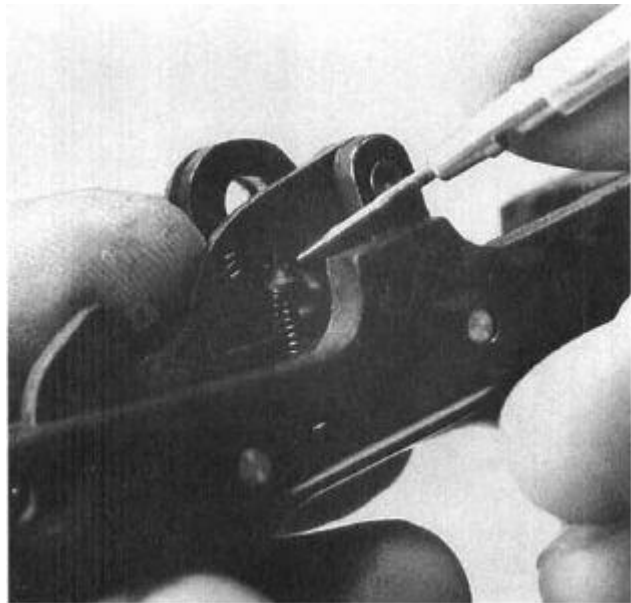
**22.** Remove the trigger shield upward.



**23.** Insert a screwdriver, angled from the rear, to pry the tip of the disconnect spring downward, out of its recess in



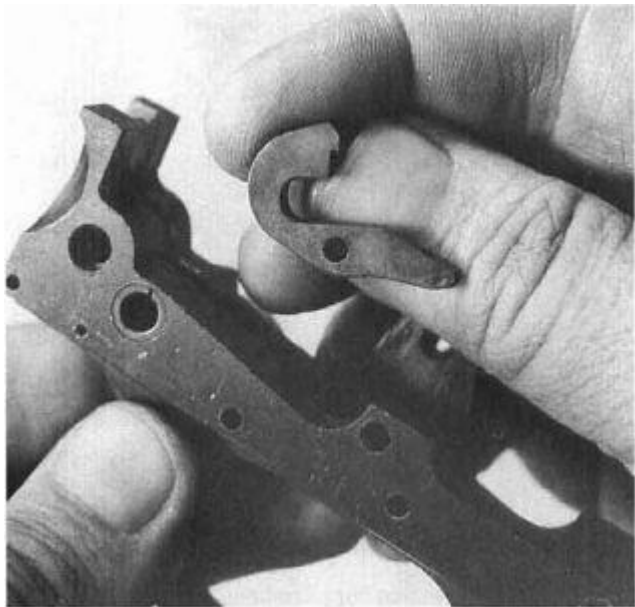
the underside of the disconnect. Caution: Hold a fingertip on the left side to restrain the spring and plunger as it clears, and ease them off upward.





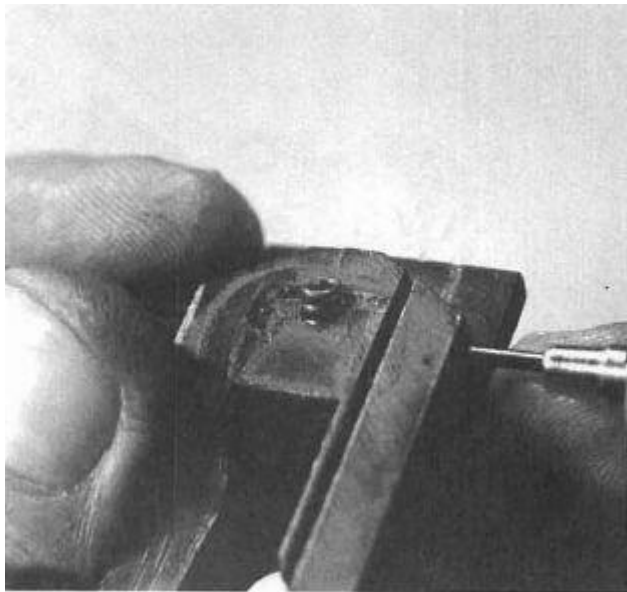
**24.** Push out the trigger pin, and remove the trigger and disconnect assembly upward. Drifting out the cross

pin will allow separation of the disconnect from the trigger, but the pin is riveted in place, and should be removed only for repair.

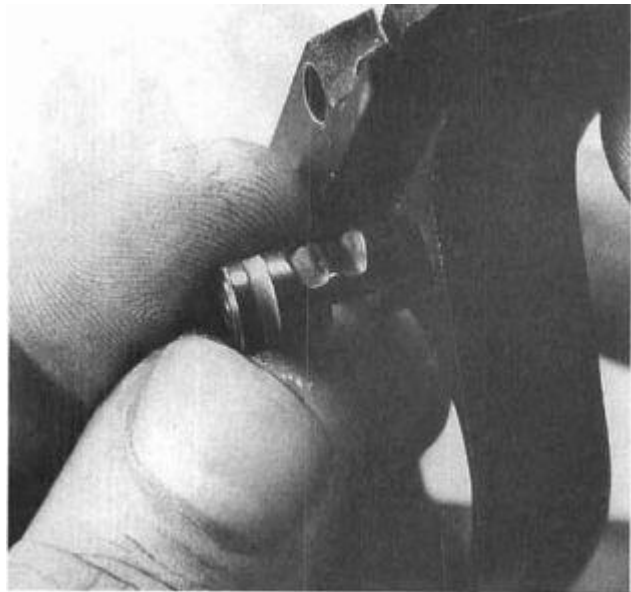


**25.** Drift out the sear pin, and remove the sear upward.

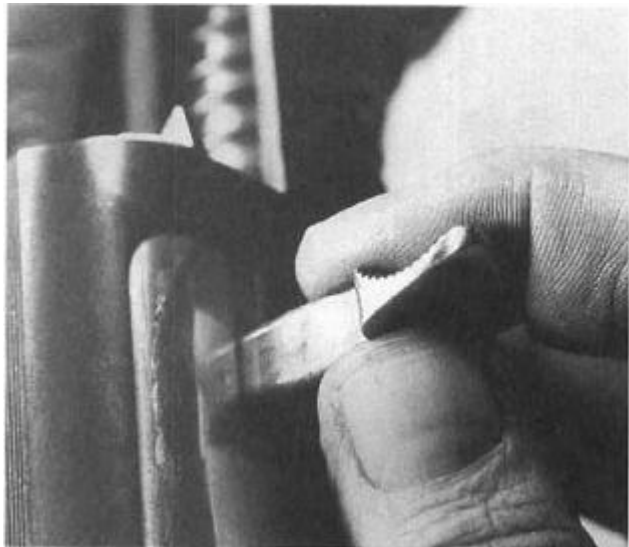
**26.** Drift the roll pin at the rear of the housing further toward the right, and insert a small screwdriver from the left to lift the safety spring and its plunger out upward.



**27.** Remove the safety button toward either side.

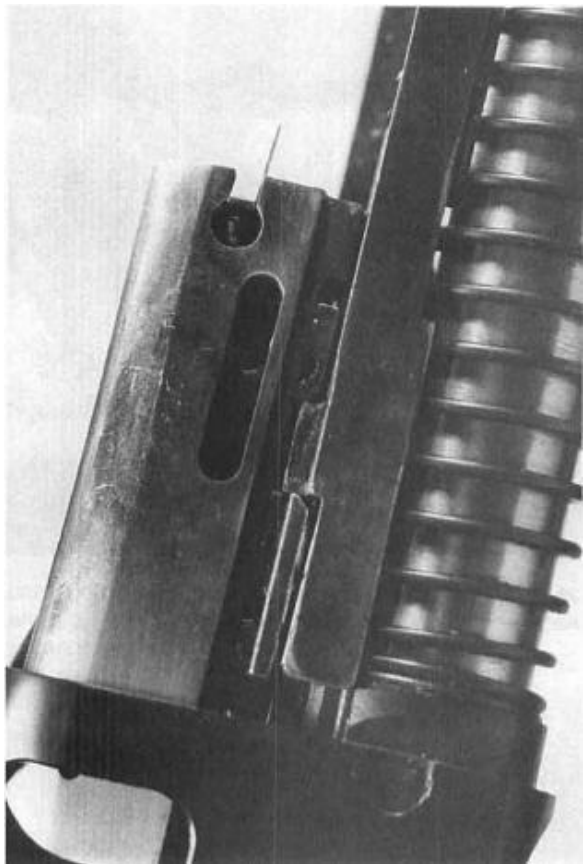




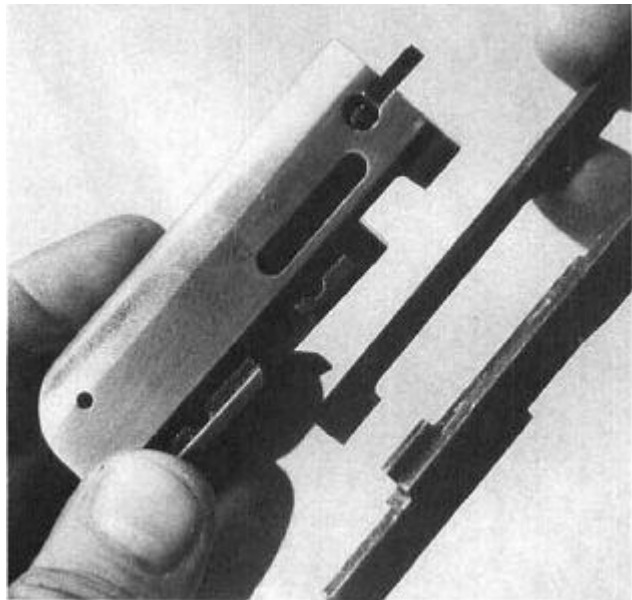


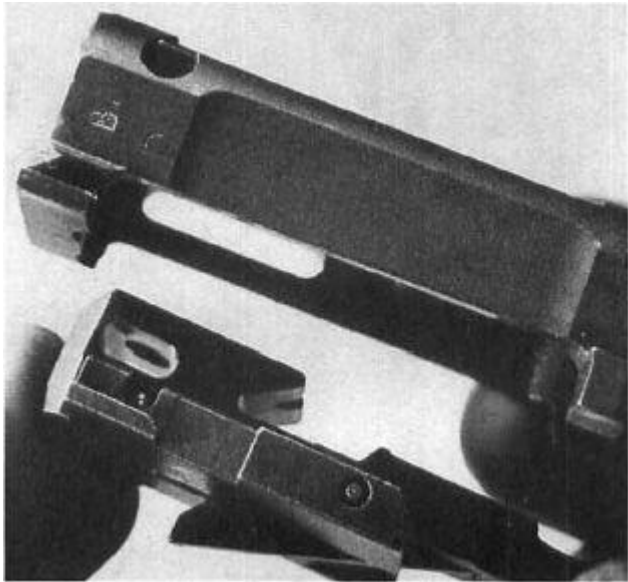
**28.** Grip the action bar assembly, and move it slightly toward the rear. Grasp the operating handle firmly, and pull it straight out toward the right.

**29.** Insert a fingertip in the bottom of the receiver to depress the cartridge stop on the underside of the bolt, and slowly release the spring tension, moving the action bar and bolt assembly out to-ward the front.



**30.** Even after the bolt is moved out, the recoil spring is still under tension, so control it and ease it off the magazine tube. Detach the bolt from the action bars, tipping it toward the left to disengage it.

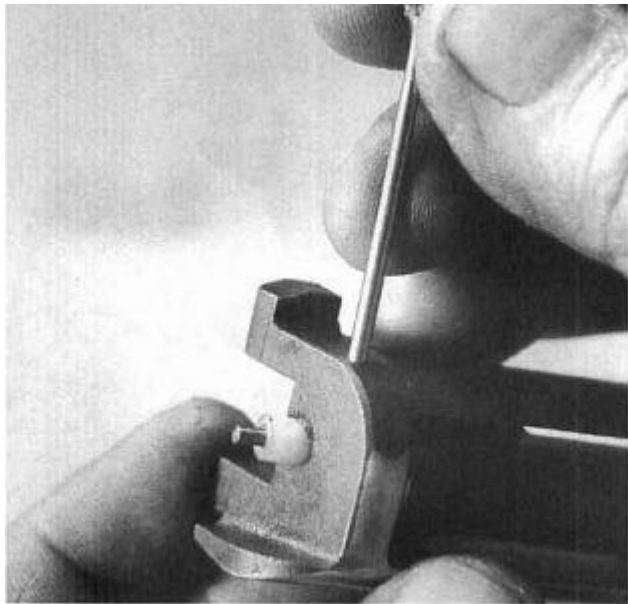




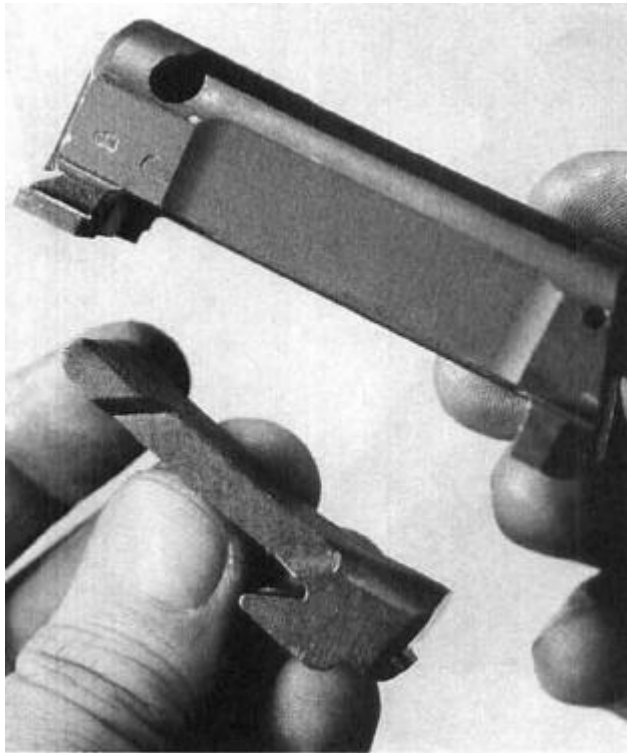
**31.** Remove the bolt slide from the underside of the bolt. Drifting out the cross pin in the slide will allow removal of the

shell stop and its spring. Note that the spring is a torsion type, and is under tension, so restrain it as the pin is drifted out toward the right. The bolt handle retaining plunger and spring can also be removed by drifting out the cross pin at the front of the slide.

- 32.** Drift out the cross pin at the upper rear of the bolt, and take out the firing pin bushing, firing pin, and return spring toward the rear.



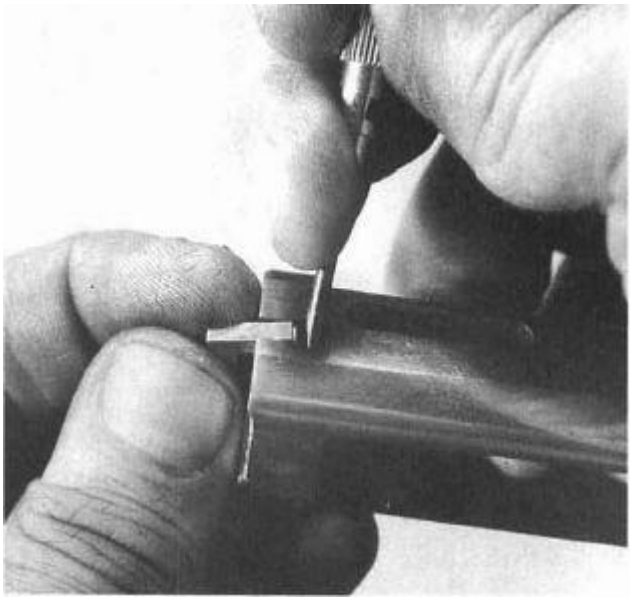




**33.** After the firing pin assembly is

removed, take out the locking block downward.

- 34.** Insert a small screwdriver between the extractor and its plunger, depress the plunger toward the rear, and lift the extractor out of its recess. Caution: Control the plunger, ease it out, and remove the plunger and spring toward the front.



**35.** The carrier release, which is tempered to be its own spring, lies in a recess on the inside of the right receiver wall, and

is retained by a vertical pin at the rear. Use a roll pin punch to drift the pin upward (it is replaced in the same direction), and remove the carrier release.



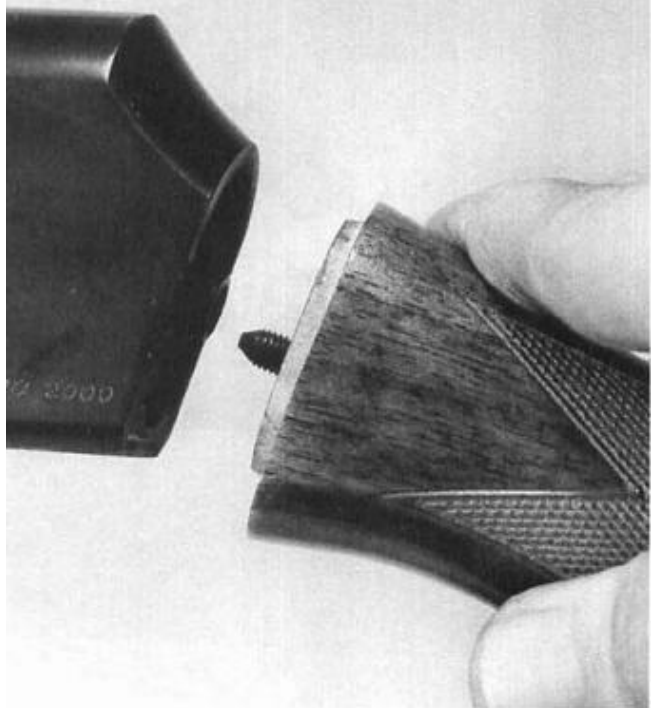


**36.** Insert a tool from the front to restrain the magazine end piece, and push out the vertical pin in the magazine tube, just behind the gas piston area. Slowly release the spring tension, and remove the end piece, magazine spring, and follower toward the front.

**37.** Remove the bultplate, and use a B-Square stock i tool or a long-shanked screwdriver to back out the stock bolt and its washer. Take off the stock toward the rear. Removal of

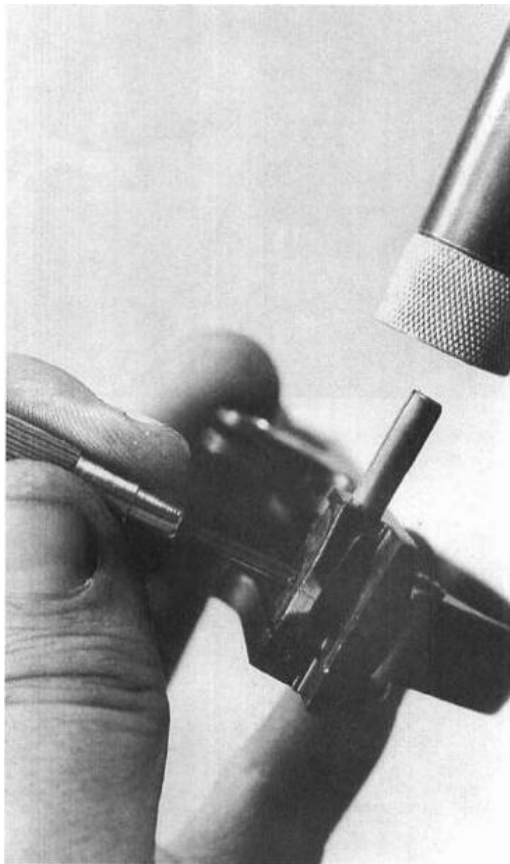
the stock bolt will also free a nylon buffer, inside the rear of the receiver, and this can be pried out toward the front if necessary. A steel barrel guide is mounted inside the top of the receiver, staked in place, and this is not removed in normal takedown.





# Reassembly Tips:

1. When driving the large roll pin at the rear of the trigger housing across toward the left, insert a tool to depress the top of the safety spring as the tip of the pin passes.

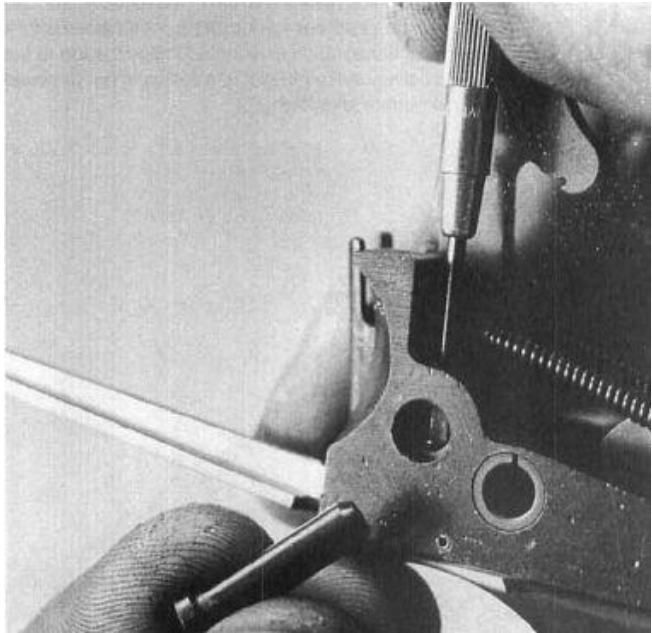


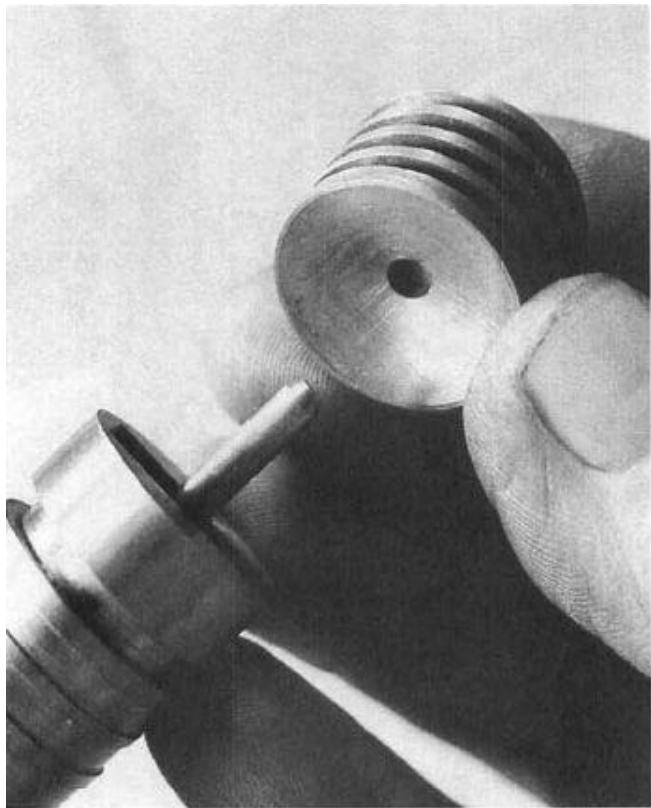
**2.** When replacing the hammer and hammer spring assembly, turn the rear spring base cross pin so the holes are oriented upward. Set the rear tips of the spring guides against the bar, and press the assembly downward until the tips enter the holes in the pin. Then, swing the assembly over toward the front to rest against the front shelf of the housing, holding it in place for reinsertion of the hammer pivot pin.



**3.** When reassembling the hammer pivot pin, insert a small tool

on the left side to depress the shell stop spring as the tip of the pin passes.





4. When reassembling the gas piston system, refer to steps 2 through 6 for the proper arrangement of these parts. When replacing the gas cylinder plug on the stem of the piston valve at the front, note that its concave surface goes toward the rear.



# Browning BPS



**Similar/Identical Pattern Guns:**  
**10 Gauge Turkey & Camo Models**  
**Waterfowl Camo**  
**Game Gun Deer Special**  
**Game Gun Turkey Special**  
**Stalker**  
**Micro**

**Data:** Browning BPS

**Origin:** United States

**Manufacturer:** Made in Japan for  
Browning,

**Gauges:**

Morgan Utah  
10, P2,20,28, and  
.410

**Magazine  
capacity:**

4 rounds (12  
gauge)

**Overall  
length:**

46-1/2 inches

**Barrel length:**

26 inches (others  
offered)

**Weight:**

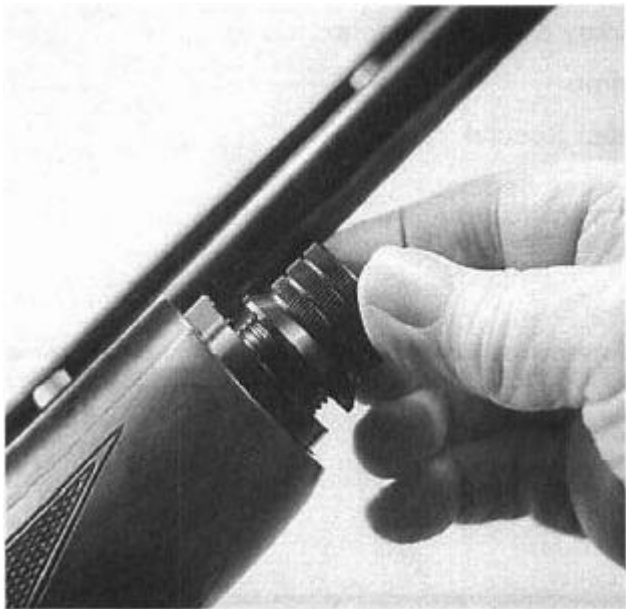
7-1/2 pounds

Miroku of Japan has made the BPS for Browning since 1977. Some elements of its design are similar to the Ithaca Model 37, but the mechanical details and takedown are not the same. The BPS has been offered in numerous

models, gauges, and barrel lengths. All are mechanically the same, and the instructions will apply.

# Disassembly:

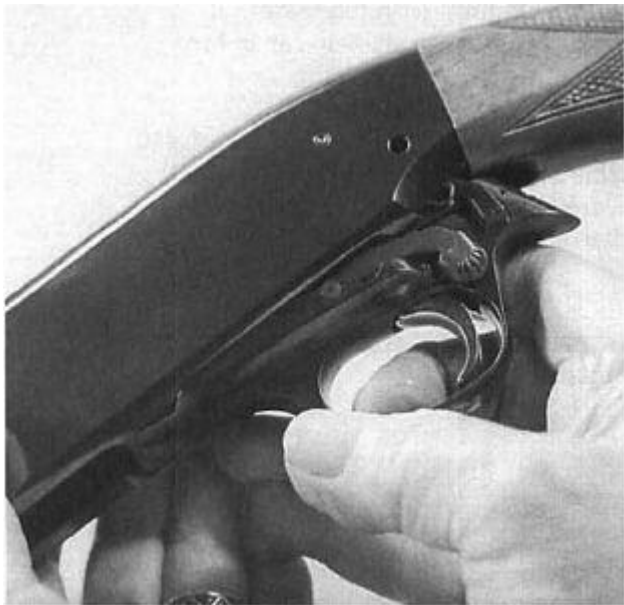
1. Cycle and close the action, and put the manual safety in on-safe position. Unscrew the magazine cap, and remove the barrel toward the front. NOTE: If you have one of the Game Gun versions, you must also remove the barrel-stabilizing lock washer and split ring before the barrel is taken off.



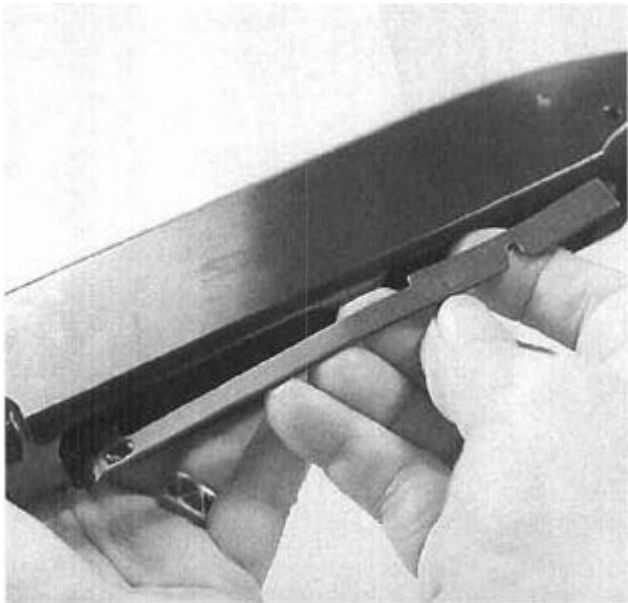
- 2.** Use a suitable tool, such as a roll-pin drift or the Brownells tool shown, to push out the trigger-group cross pin.





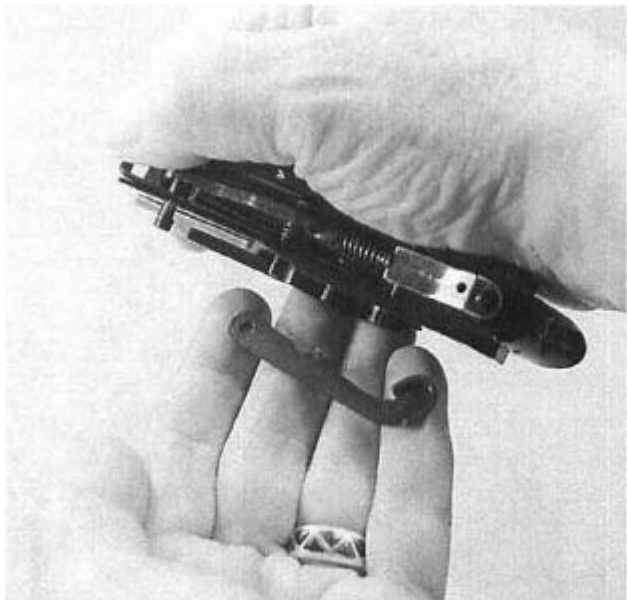


3. Tip the trigger group downward at the rear, and remove it downward and rearward.



- 4.** As the trigger group is taken out, the shell stops on each side will be released for removal.

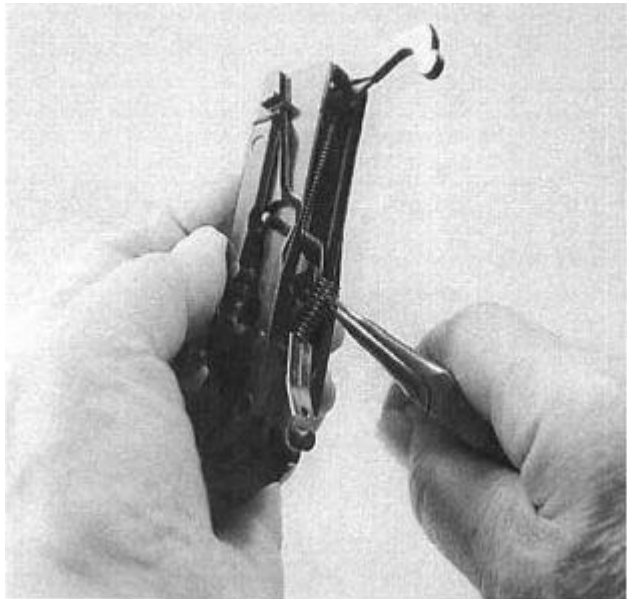
5. Turn the trigger group as shown, and depress the slide lock at the front. The slide-lock lever will fall off its post on the left side.



**6.** Restrain the hammer, pull the trigger, and ease the hammer forward to fired position. Keep the hammer under

control. If it impacts the crosspiece, the slide lock can be damaged. If necessary for repair, the trigger-group cross-pin sleeve and its attached spring can be drifted out toward the right. However, it retains no parts, and can be left in place.





7. Using a suitable tool, detach, the sear spring from its stud on the sear, and remove it. The spring is slightly compressed,

so control it.

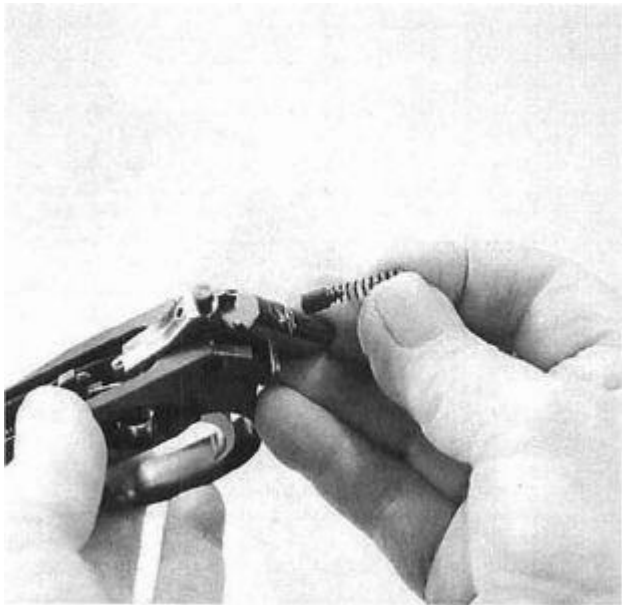


**8.** Use a proper roll-pin punch to drift out the trigger-spring



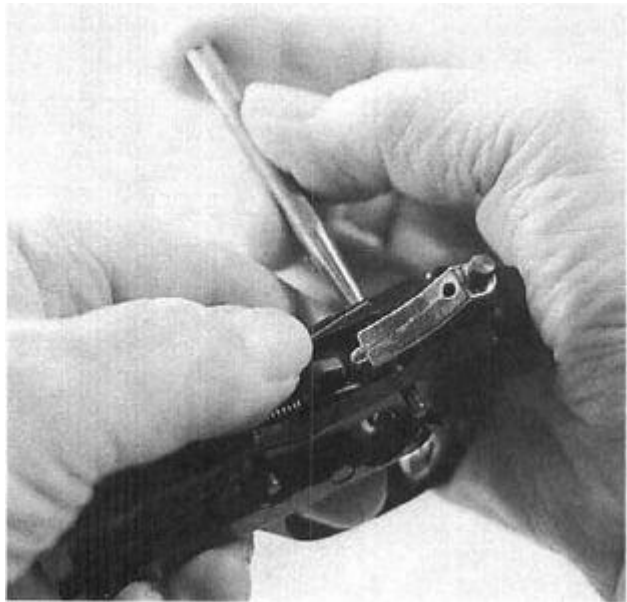
retaining cross pin. Block the hole at the rear as the punch is taken out, as the spring will be released.

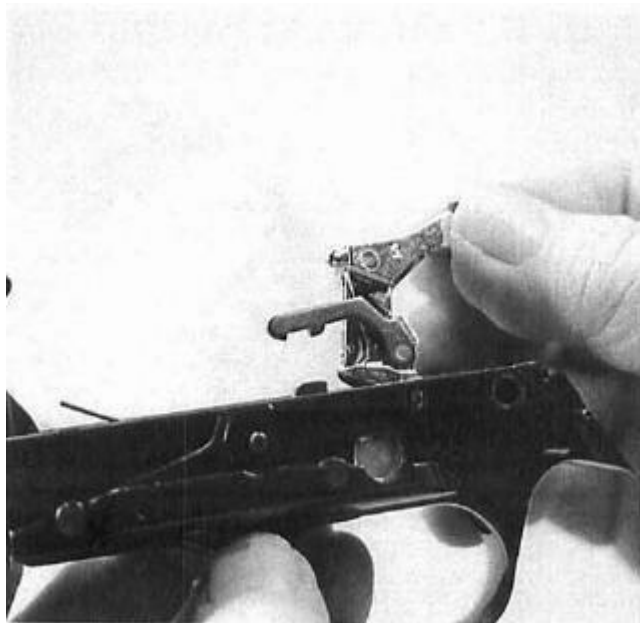
9. Remove the trigger spring and plunger toward the rear. The plunger may not come out with the spring, but it can be easily pushed out after the trigger is removed.



**10.** Keep a finger on top to restrain the slide lock spring, and push the trigger cross pin slightly toward the left until

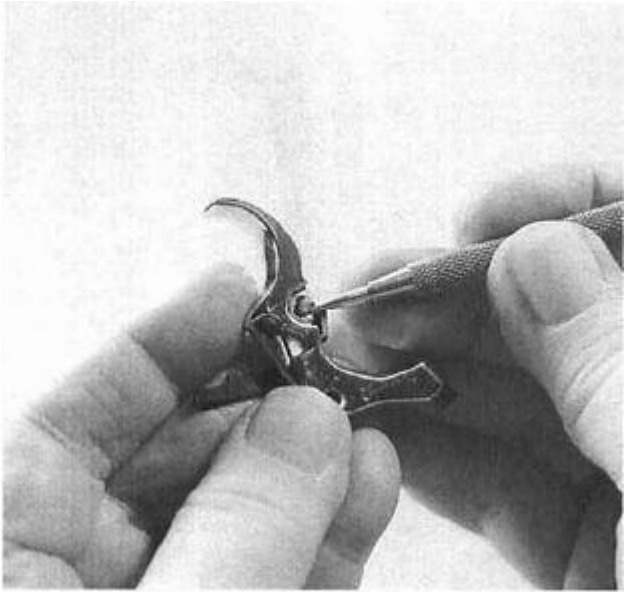
the arm of the spring is released. Ease the spring arm over toward the front, releasing its tension. Caution: Control the spring.



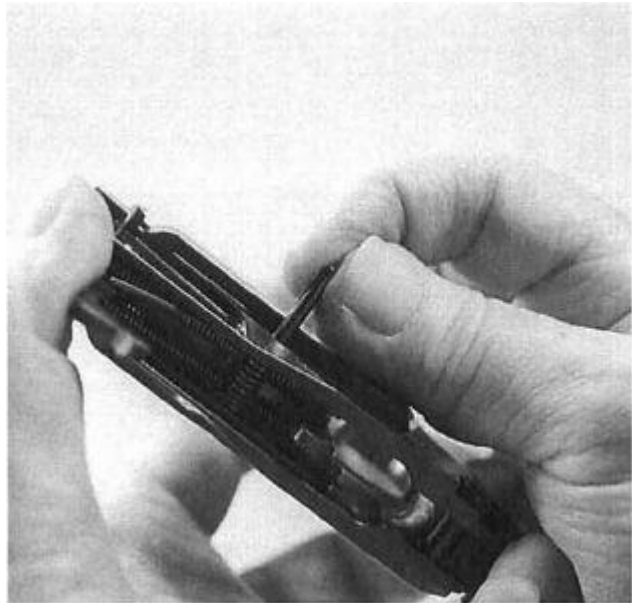


**11.** Push the trigger pin out toward the left, and remove the trigger upward. Because of the

attached disconnecter, the trigger will have to be turned slightly during removal.



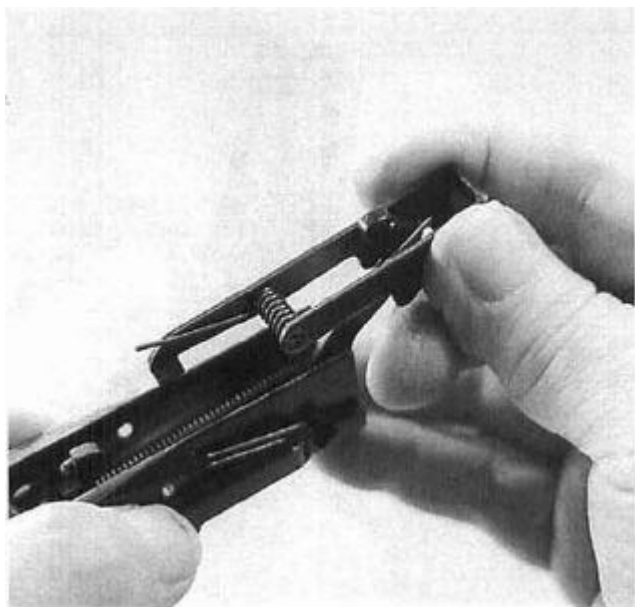
- 12.** The disconnecter is retained on the trigger by a C-clip on the right side. If removal is not necessary for repair, it is best left in place.
  
- 13.** Restrain the hammer, and push out the slide-lock cross pin toward either side.

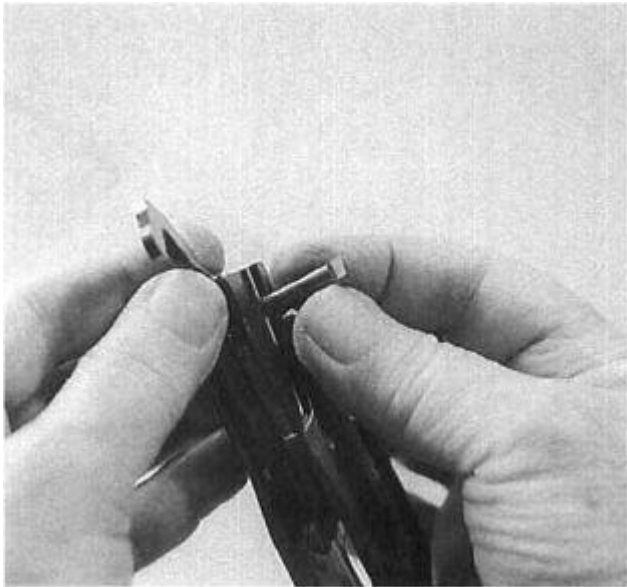


**14.** Ease the hammer forward, move the slide-lock assembly forward, and take it off upward. The slide lock-spring

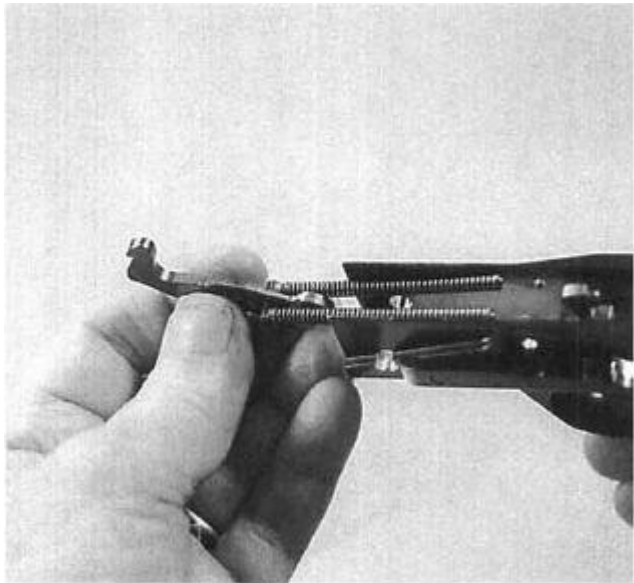


is easily detached.





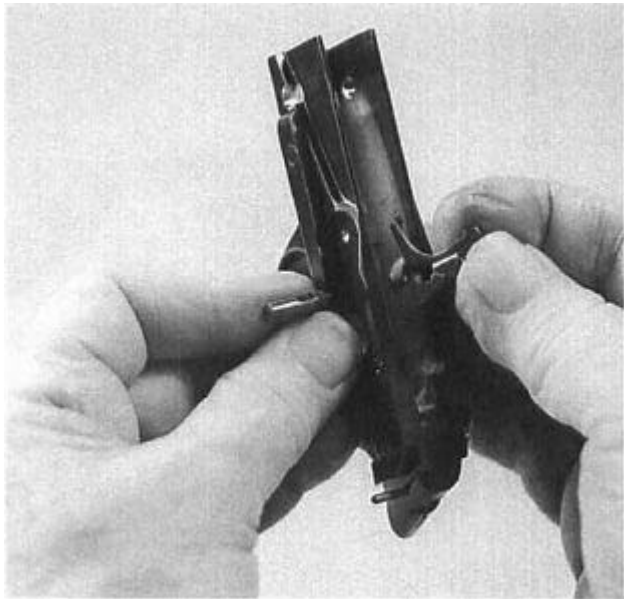
**15.** Restrain the hammer, and push out the hammer pin toward either side.



**16.** Remove the hammer assembly toward the front. The twin-hammer springs, spring guides, and the spring-base

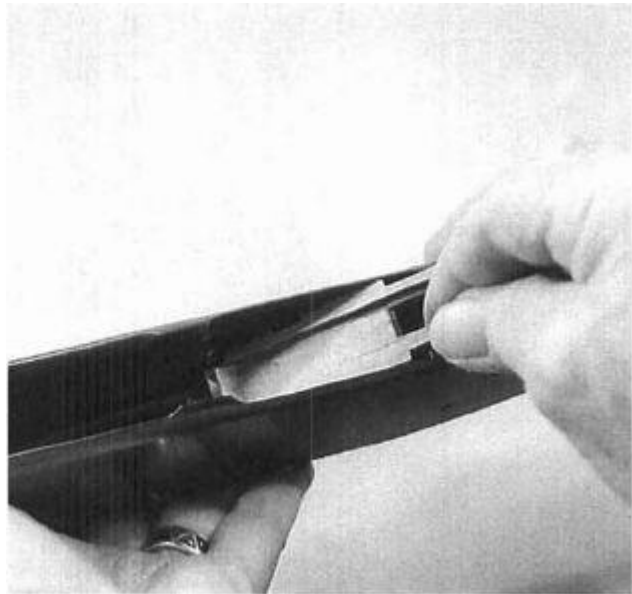
cross pin are easily detached from the hammer.

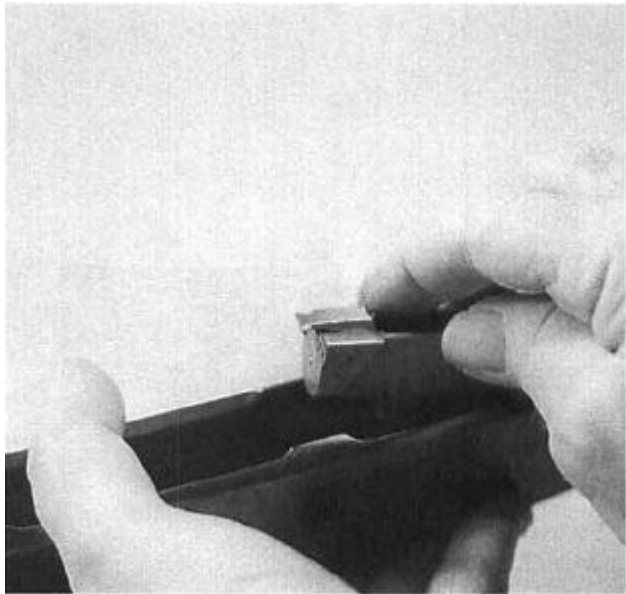
- 17.** Push out the sear cross pin, and remove the sear upward.



**18.** Move the action slide to align the bolt with the trigger group recesses in the receiver, and lift the bolt slide piece at the

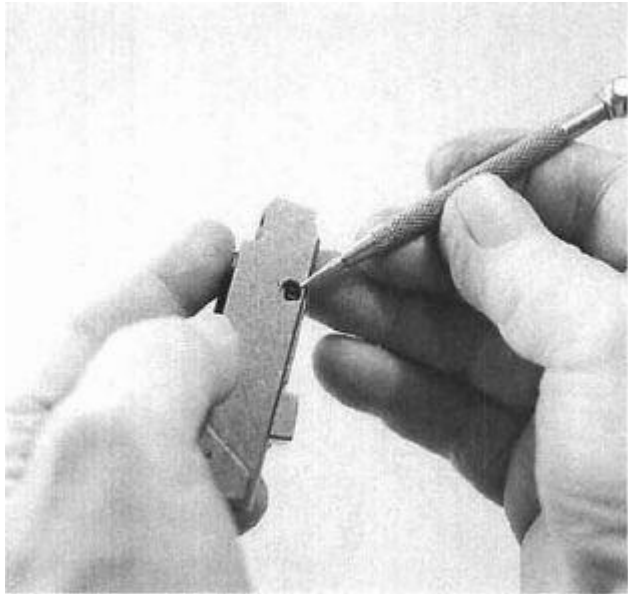
rear for removal. Take out the action bar assembly toward the front. Separating the action bar from the forend wood requires a special tool for the retaining nut at the front, and it is best left in place except for repair.





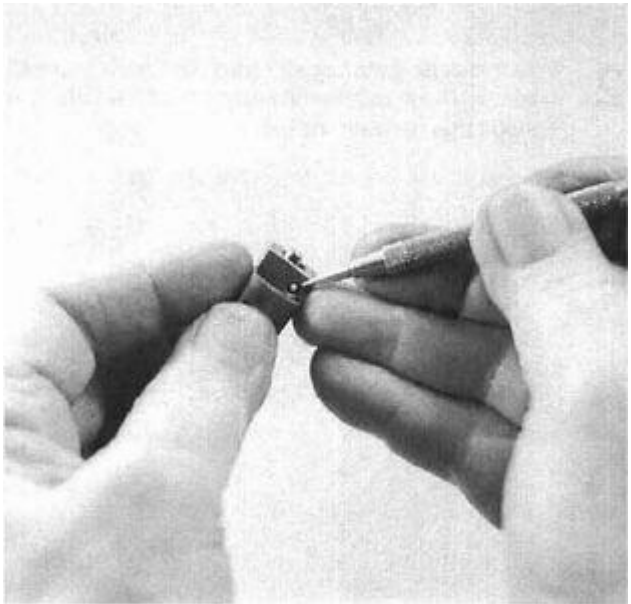
**19.** Remove the bolt from the receiver.



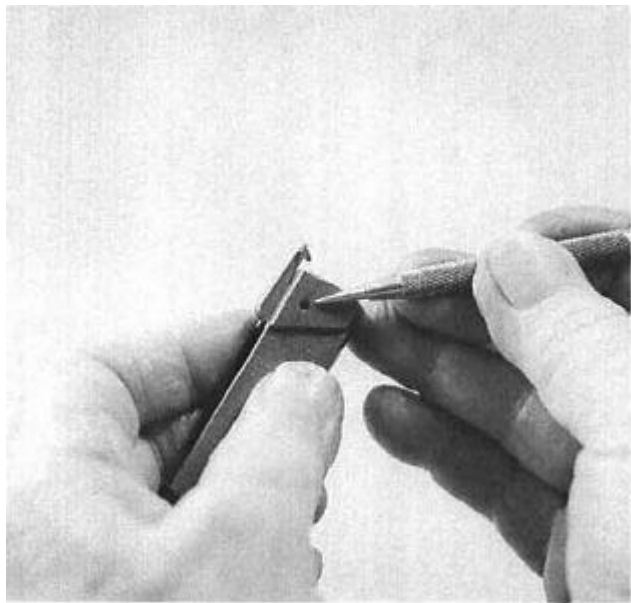


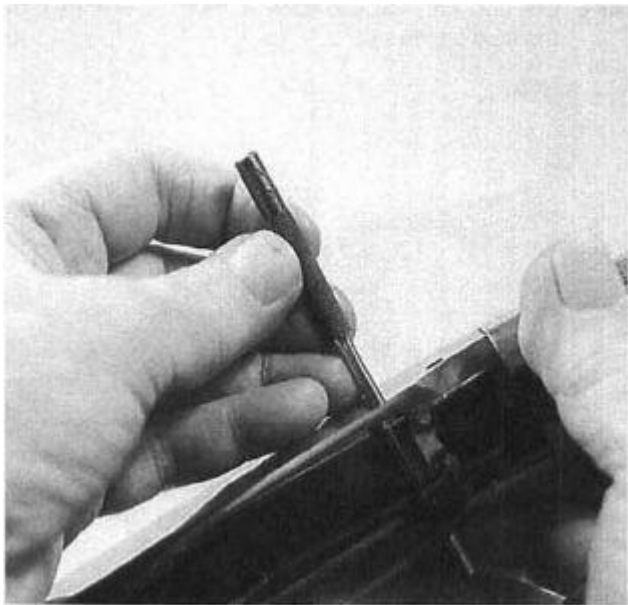
**20.** Drifting out this roll pin will allow removal of the locking block from the bolt.

**21.** The firing pin is retained by a vertical roll pin at the rear of the bolt.

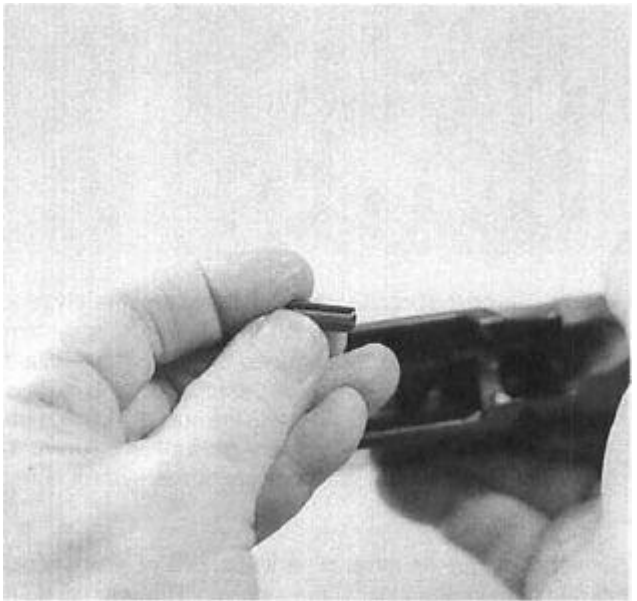


**22.** This roll pin retains the extractor and its coil spring. As the roll-pin drift is taken out, restrain the extractor



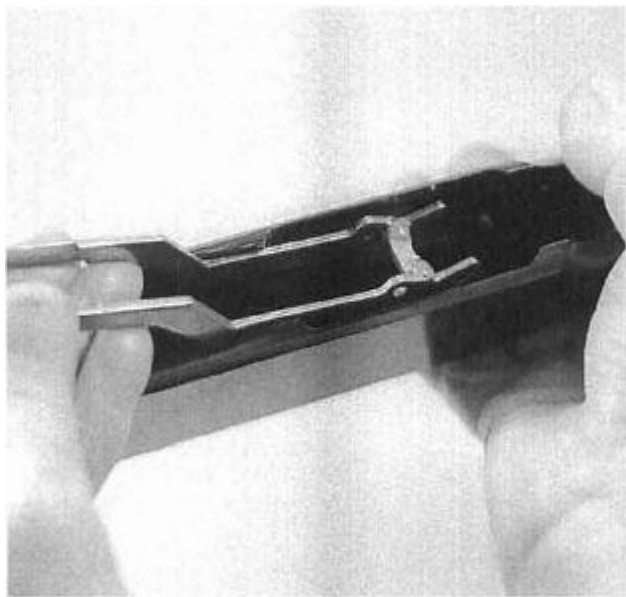


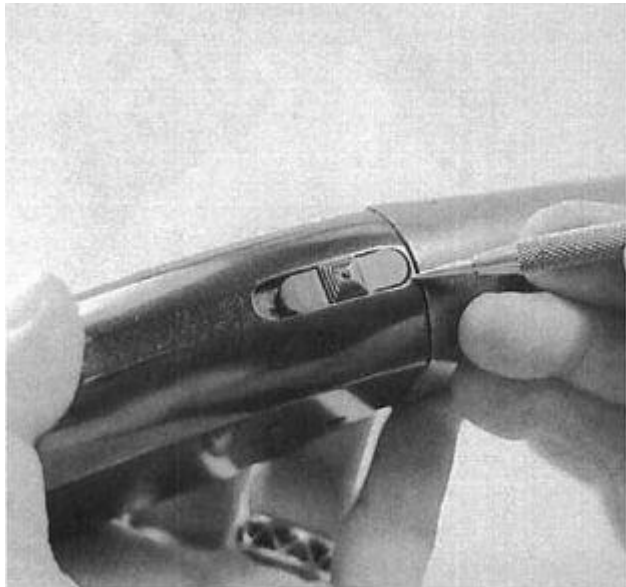
**23.** To keep the tool centered in the cross-pin depression, use a roll-pin punch to drift out the carrier pin. Use a 5/32 punch.



**24.** The carrier-pin retainer will be freed inside the receiver for removal.

**25.** Remove the carrier.





**26.** Given the precise mating of the manual safety post with the safety stud on the trigger, this system should not be

disassembled routinely. It is retained by a 5/16-inch nut inside the receiver, and there is an adjustment screw inside the nut. The safety button and its plunger and spring are taken off upward. Again, amateur disassembly of this system is not recommended.

Some notes here on three other items, one of which could not be photographed inside the receiver: The rear continuation of the sighting rib on the top front of the receiver is internally retained by two vertical screws. The



buttstock is retained by a through-bolt from the rear, accessible by removal of the buttplate. The magazine spring and follower can be removed by carefully prying out the retainer at the front of the magazine tube. Caution: Keep the retainer and spring under control.

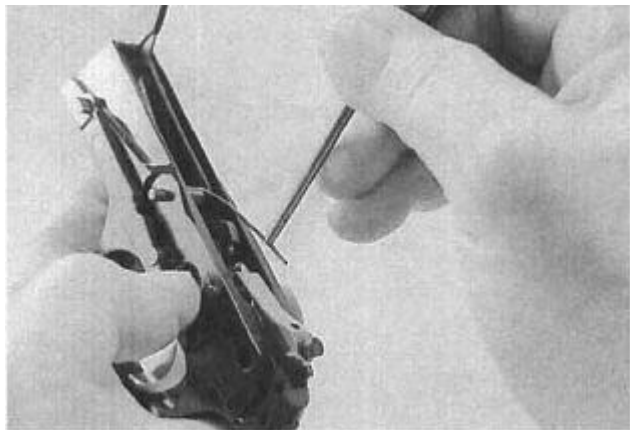
# Reassembly Tips:

1. When installing the sear cross pin, remember that the squared recesses on the pin must go toward the front, to mate with the hammer springs.



2. When installing the trigger cross pin, use a tool with a notched

tip to depress the rear arm of the slide-lock spring to go beneath the pin.



3. Note that the sear spring has a slightly larger coil at one end, and that end goes at the front, to mate with the stud on the

sear.



4. Before the trigger group is put back into the receiver, be sure the stepped ends of the hammer cross pin are turned to the position shown. Also, it will be necessary to hold the shell stops in their recesses in the receiver as the trigger

group is moved into place.



# **Browning Superposed**



## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Browning Superposed also apply to the following guns:

**Browning Citori**

**Browning ST-100**

**Browning B-27**

**Browning Lightning**

**Browning Liege**

**Browning B-25**

**Browning 8-1 25**

Browning



<b>Data:</b>	Superposed
<b>Origin:</b>	Over/Under Belgium
<b>Manufacturer:</b>	Fabrique Nationale, Herstal (FN) for Browning Morgan, Utah
<b>Gauges:</b>	12,20,28,410
<b>Overall length:</b>	46 inches (with 30-inch barrel)
<b>Barrel length:</b>	26-112 to 32 inches
<b>Weight:</b>	6 3/8 to 8 pounds

One of John M. Browning's last designs, the Superposed shotgun has been made since 1927, and is still in production. In 1974 a lower priced model called the Liege was introduced, and was made for about 2 years. A second moderately-priced version, the Citori, was offered in 1975, and is still in production. The internal mechanism of all the Browning over/under guns has enough similarity that portions of the instructions can be applied to each of them. The gun shown in the photos,

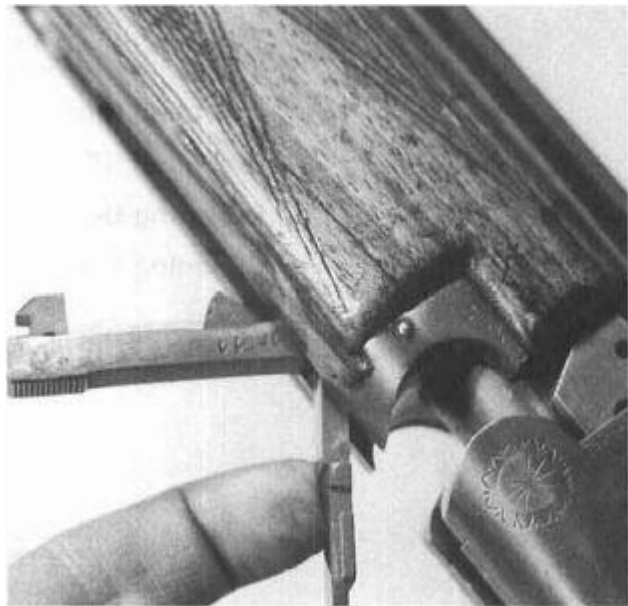
however, is an early Superposed.

# Disassembly:

1. Operate the forend latch by pushing the latch lever toward the rear, then pivoting the lever outward.



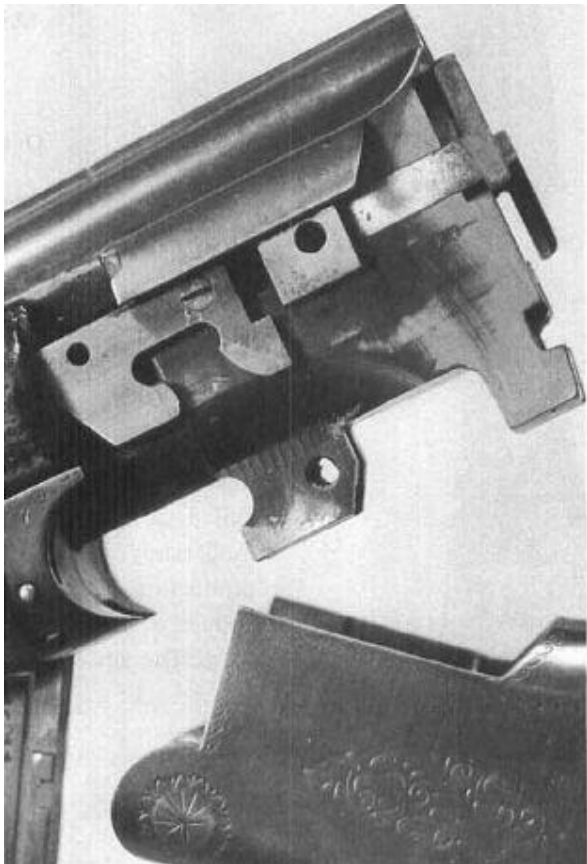
- 2.** Slide the forend forward until it stops, and swing the cocking lever lifter out of its recess in the front underside of the receiver.



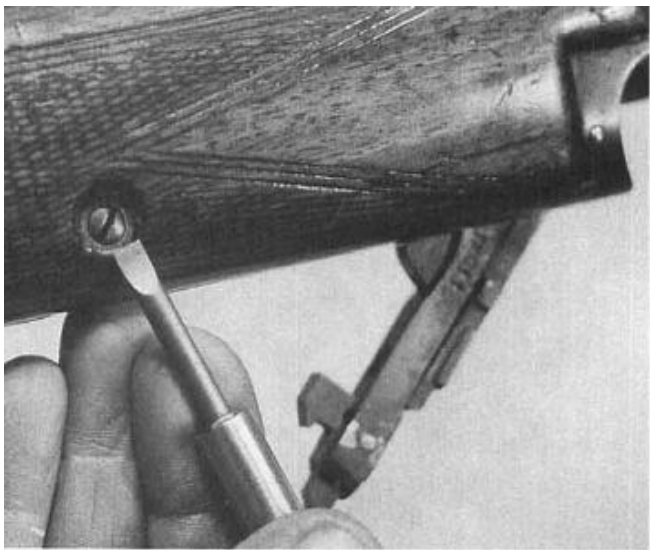
3. Operate the barrel latch, tip the barrels downward, then remove them toward the rear and upward.





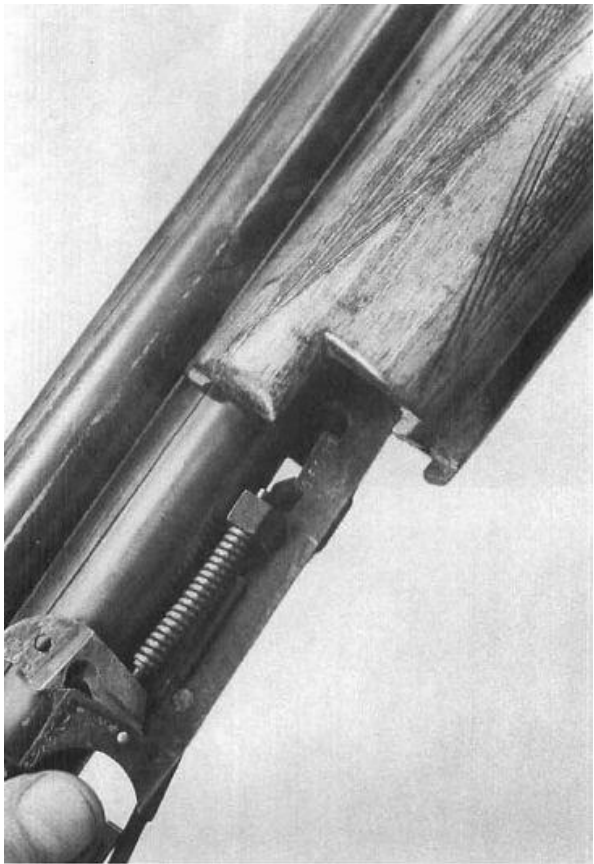


- 4.** Remove the cross screw on the left side near the lower edge of the forend.



- 5.** Slide the forend wood forward

until it clears the mechanism,  
and remove the wood  
downward.





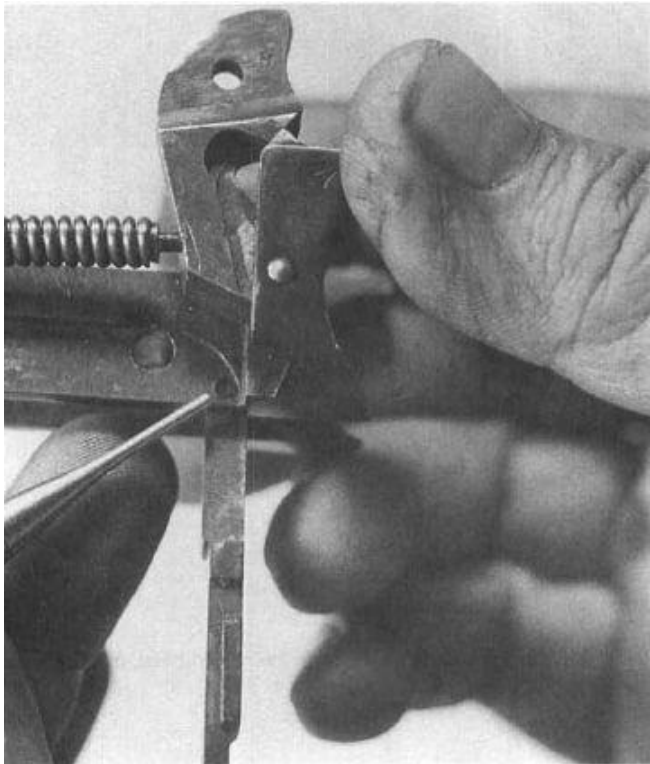
6. Drive out the large cross pin in the forend base, tho pivot for the forend latch.



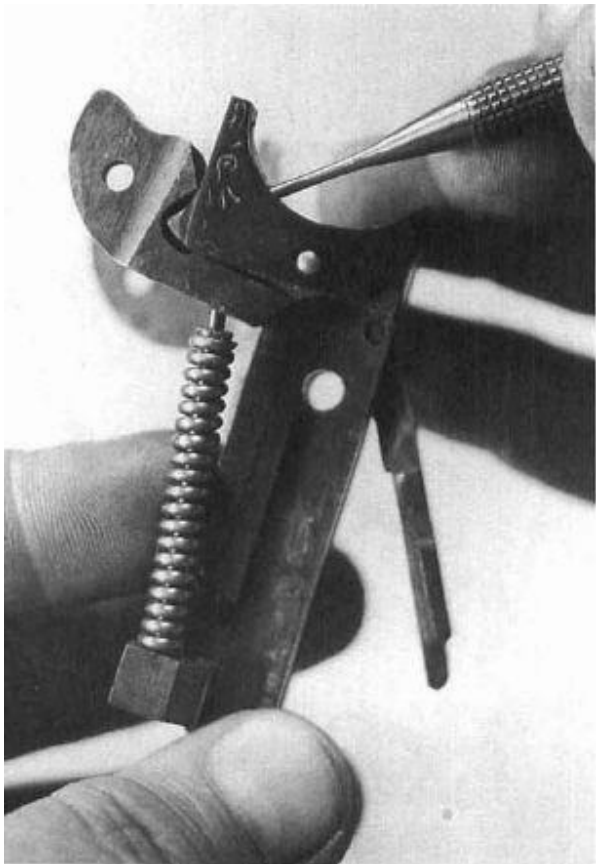
7. Remove the latch lever downward. Drifting out the cross pin at the front of the latch lever will allow removal of the lever release and its spring.
  
8. Slide the forend base mechanism forward until it stops, then remove it downward.







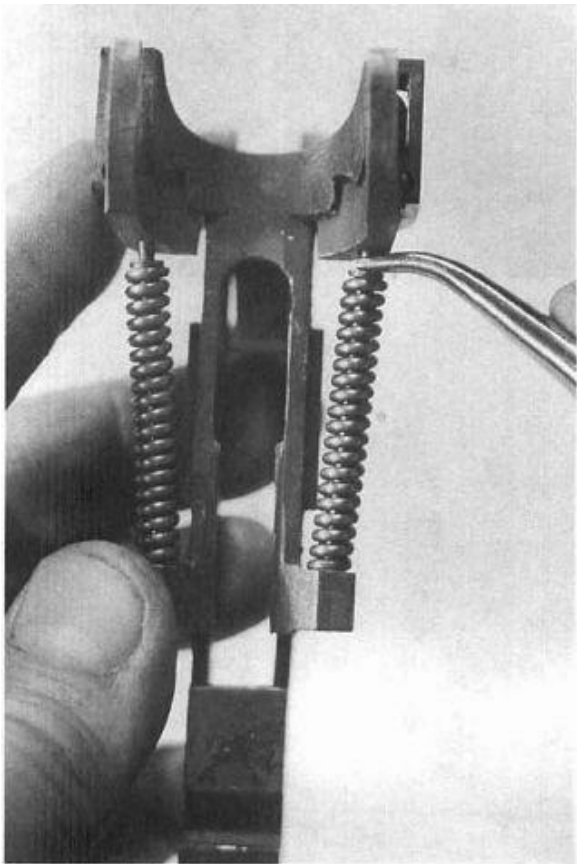
**9.** Pushing out the small cross pin near the large retaining pin will allow removal of the cocking lever lifter downward.

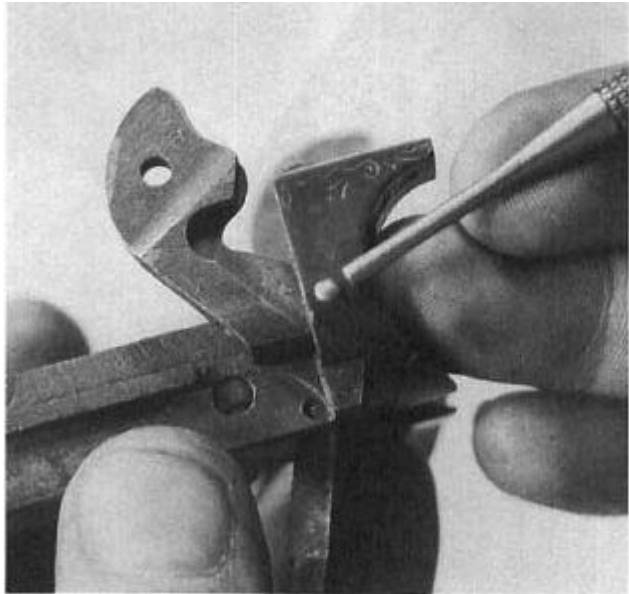


**10.** Trip the ejector hammer sears by inserting a tool in the slots in the rear face of the forend base, to allow the ejector hammers to snap toward the rear, relieving part of their spring tension.

**11.** Grip the tip of the ejector hammer spring plunger (guide) with sharp-nosed pliers, and tilt the pliers to lever the nose of the guide out of its depression on the back of the hammer. Caution: The spring is still under some tension, so

control it and ease it out. Remove the spring and guide toward the rear, and repeat the operation on the other spring and guide.



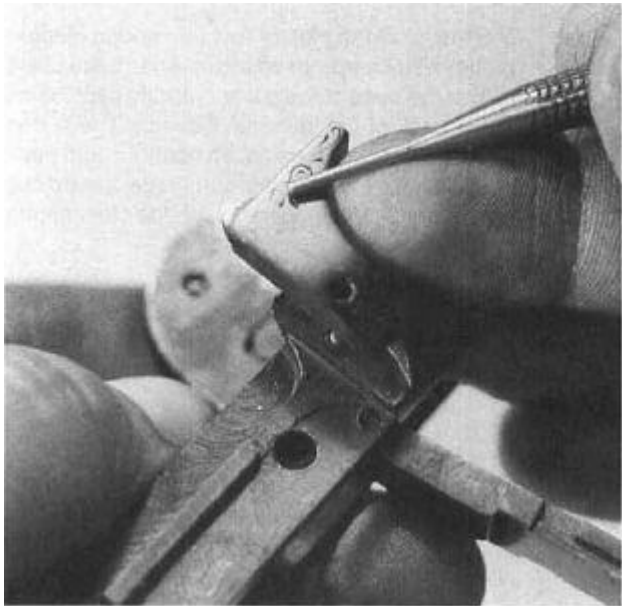


**12.** Drifting out the large cross pin at the rear of the forend base will release the ejector hammers for removal toward



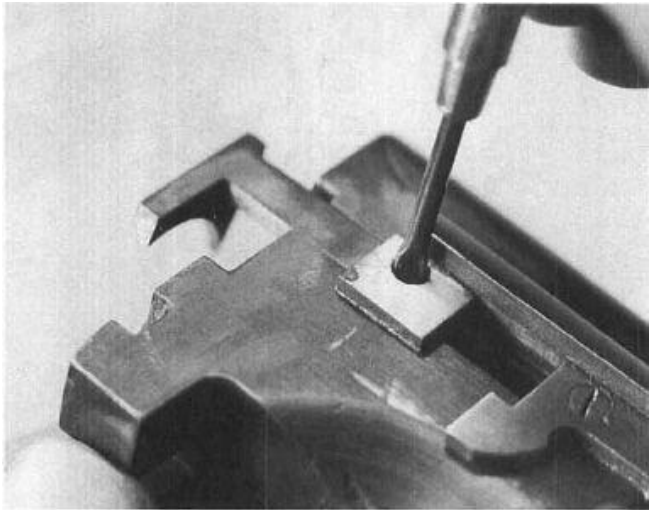
the front.

- 13.** The ejector hammer sears are retained on each side by small pins in the upper wings of the forend base, and these pins are contoured on the out-side to match the curve of the base. These are difficult to locate, and if possible should be left in place. If removal is necessary for repair, each pin must be driven out inward to release the sears and their springs.



**14.** Move the ejectors back until the hole in the side of each one aligns with the retaining screw. Back out the screws,

and remove the ejectors  
toward the rear.





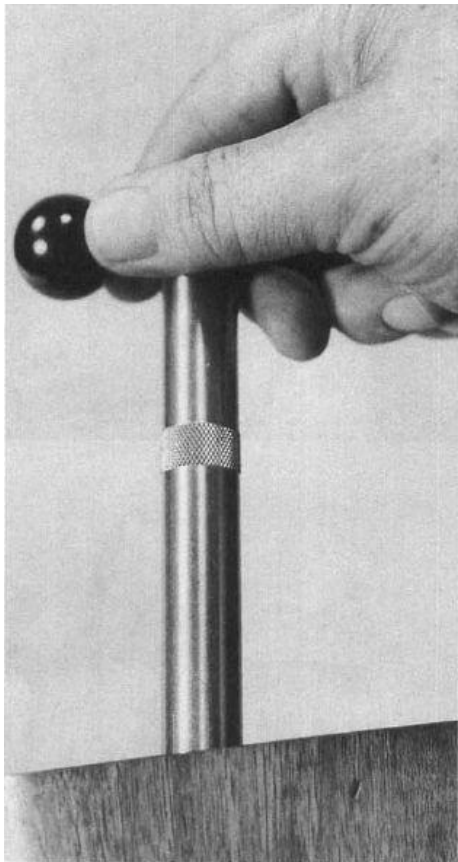
**15.** After the ejectors are removed, the ejector extensions can be slid out toward the rear. It is not

necessary to remove the stop screws.

- 16.** Remove the two screws in the rear tail of the trigger guard. The guard is not removed at this time.

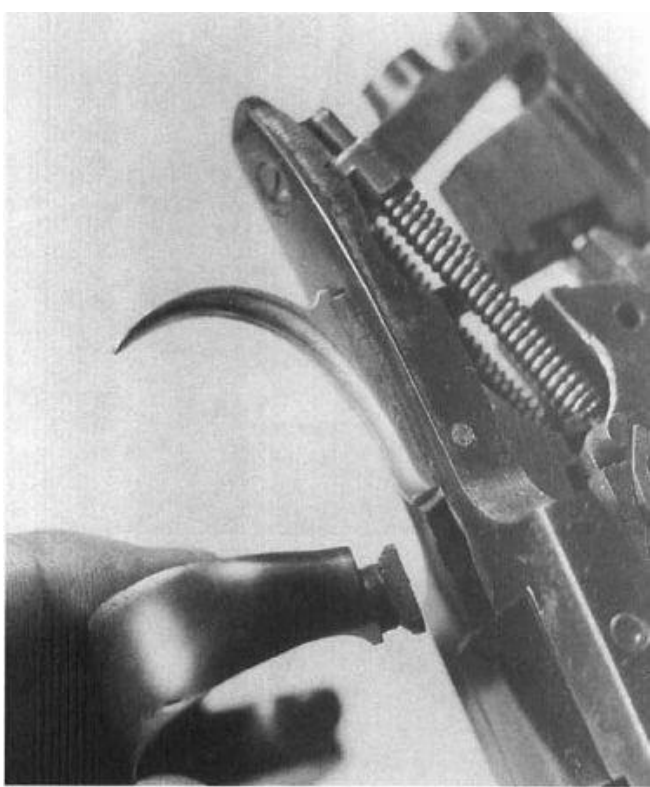


**17.** Remove the buttplate, and use a B-Square slock tool or a long-shanked screwdriver to remove the stock mounting bolt, lock washer, and washer toward the rear. Take off the buttstock toward the rear.

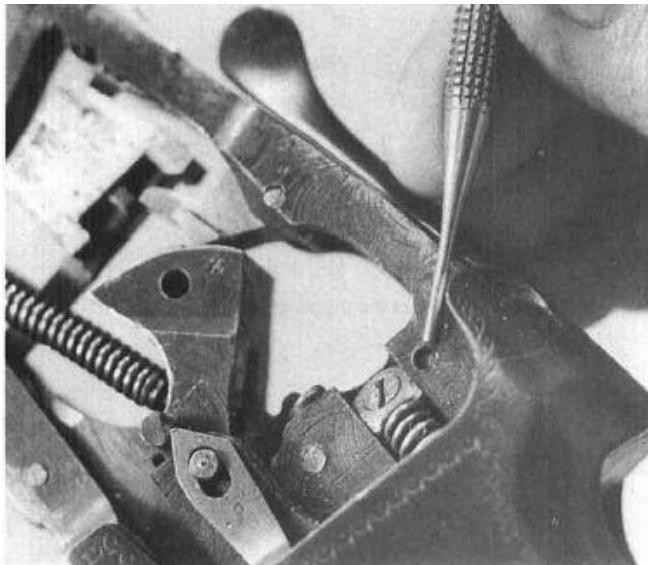




**18.** Turn the trigger guard straight out to either side, and remove it downward.

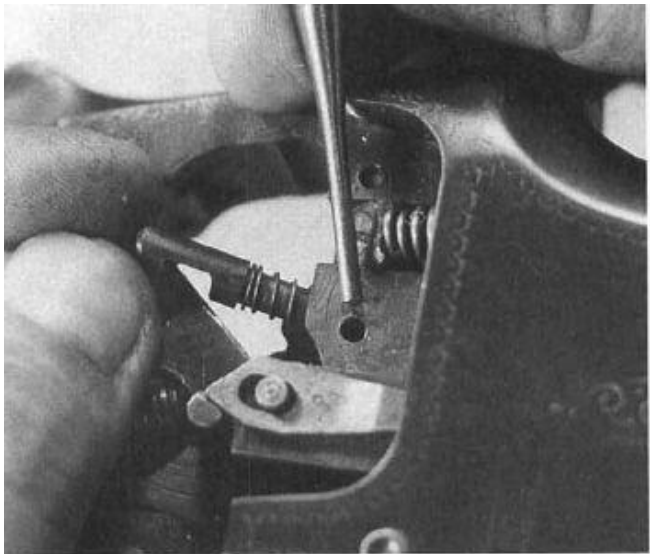


**19.** With the hammers in cocked position, it is possible to remove both firing pins without further disassembly. The upper firing pin is retained by a cross pin that is driven out toward the right, and the firing pin is removed toward the rear.



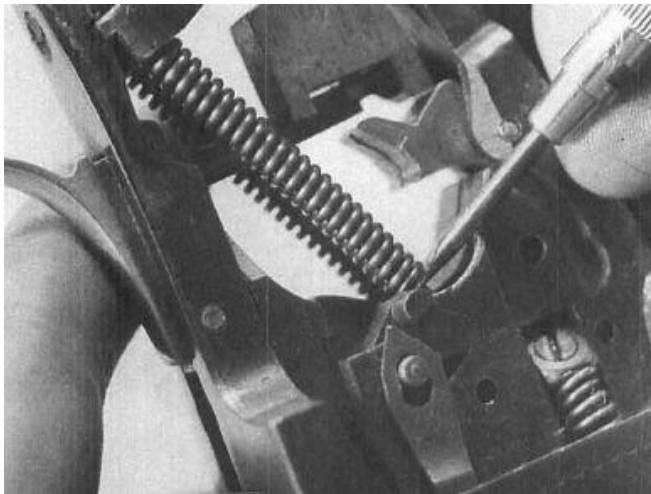
**20.** The cross pin that retains the lower firing pin is drifted out in the opposite direction, toward the left, and the lower firing pin and its return spring

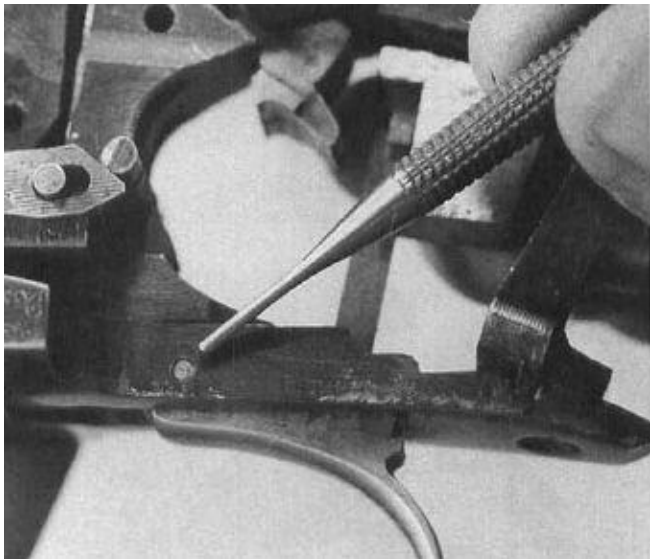
are taken out toward the rear.  
The upper firing pin has no  
spring.



**21.** Operate the trigger and inertia

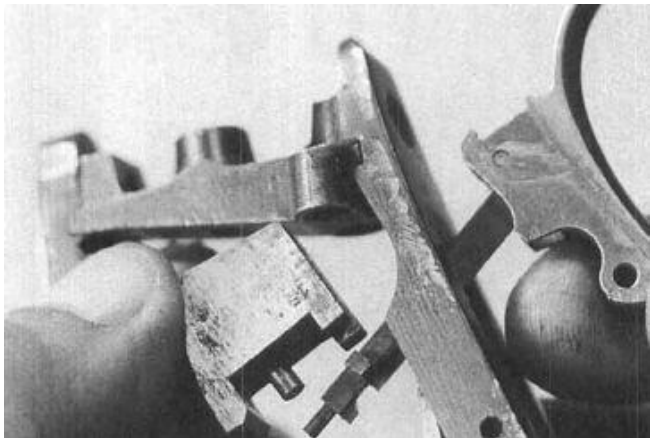
block to trip both sears, dropping the hammers to the fired position. Insert a tool behind each hammer spring guide, and lever them outward, disengaging the nose of the guide from the recess in the back of each hammer. Caution: These strong springs are under tension, so control them during removal.





**22.** Drift out the trigger cross pin.



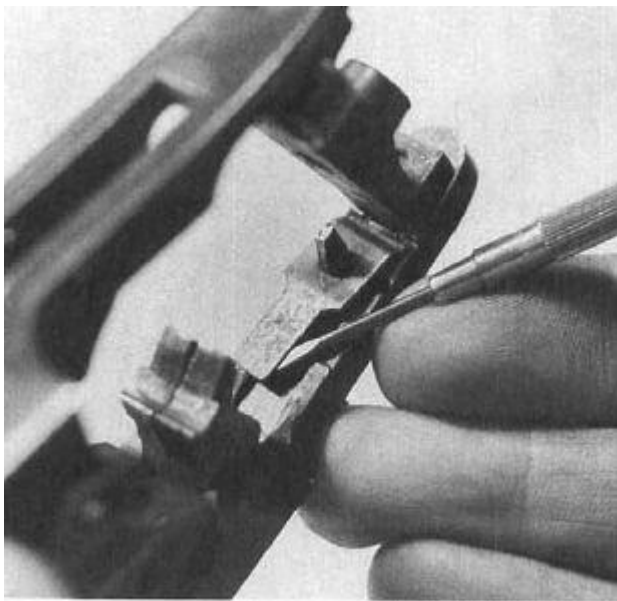


**23.** Move the trigger forward and downward, detaching the inertia block from the underlug of the safety button. Slide the trigger connector downward, detaching it from the inertia block. Restrain the inertia

block spring and plunger, as these parts will be released as the connector is moved downward. The trigger is removed downward, and the inertia block toward the side. Drifting out the small cross pin in the trigger will allow removal of the trigger plunger and its spring toward the rear.

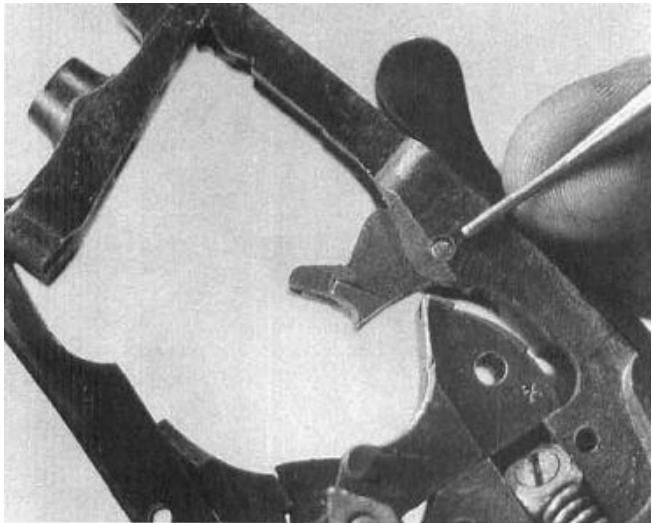
- 24.** Use a tool to lift the front tab of the safety spring out of its recess, and rotate the spring straight out to either side. The spring is removed downward, and the safety button and small

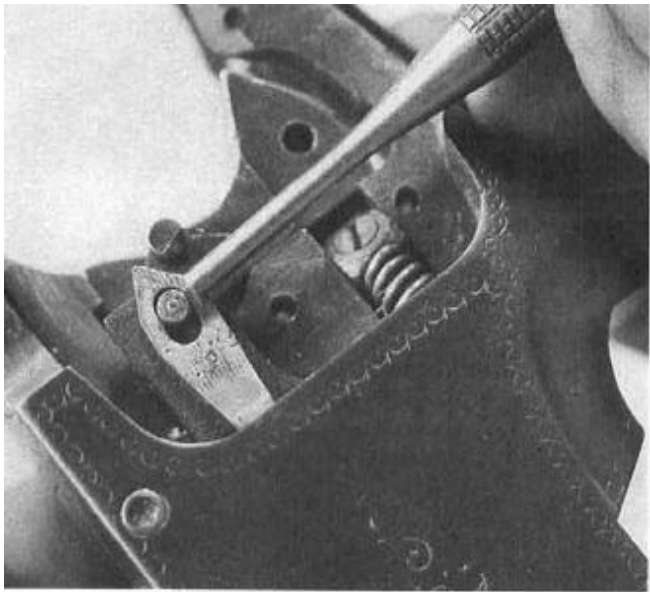
spacer block upward.



**25.** Drift out the cross pin at the top of the receiver, in the

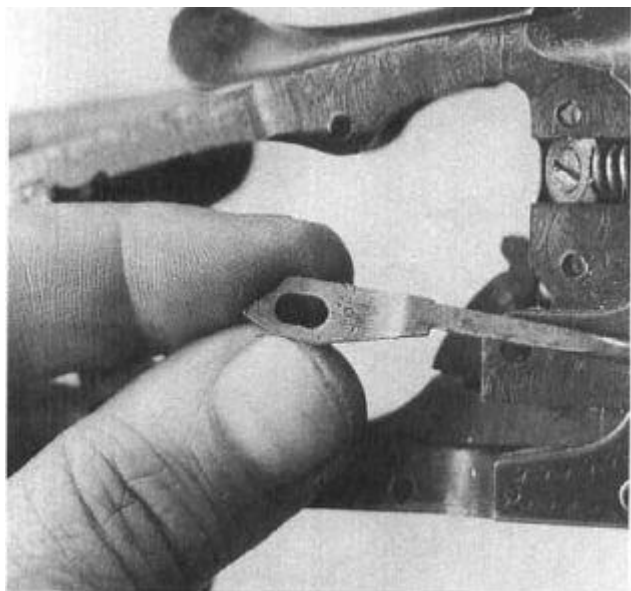
upper tang, and remove the  
sears and their springs  
downward and toward the  
rear.





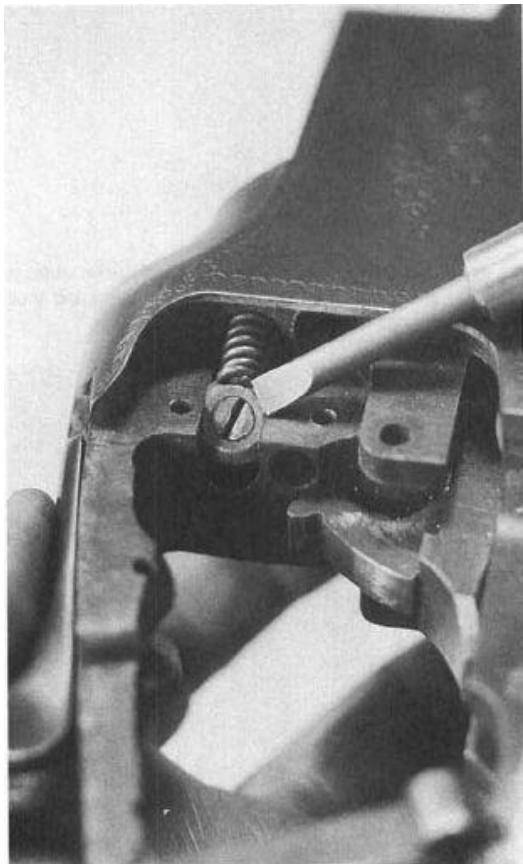
**26.** Taking care not to damage the rear tips of the ejector trip rods, drift out the hammer pivot pin, and remove the

hammers toward the rear.



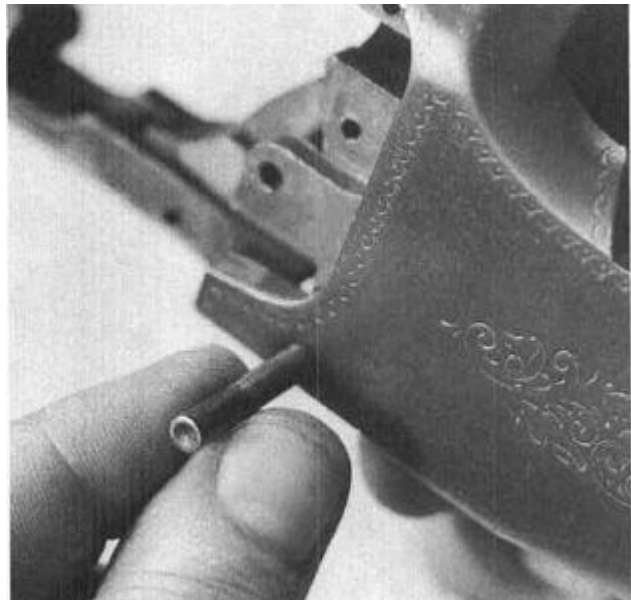
**27.** Slide the ejector trip rods straight out toward the rear.

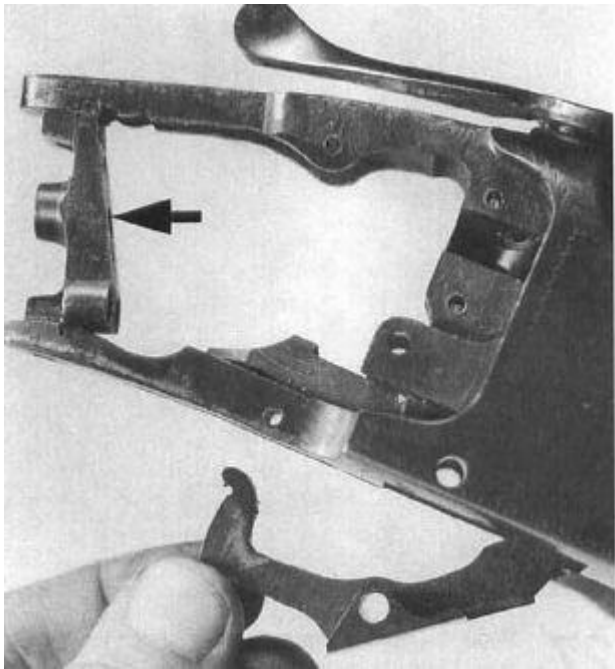
Keep them separated, as they are not interchangeable.





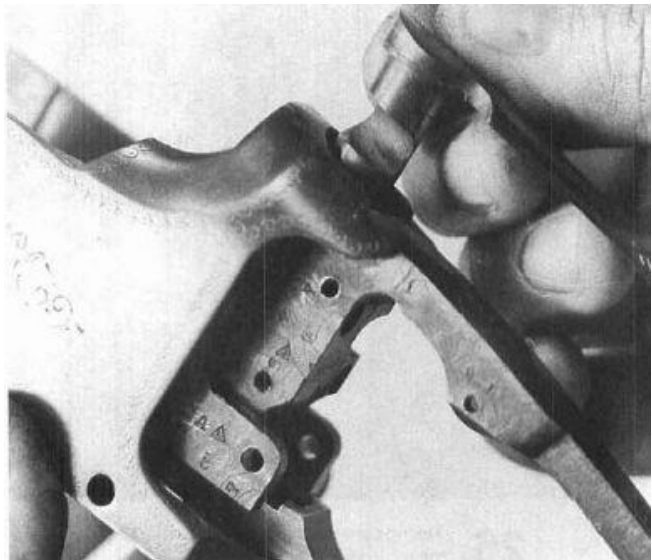
- 28.** Remove the barrel latch spring base screw, on the right side of the receiver, and take off the base and spring toward the rear.
- 29.** Drift out the large cross pin near one lower edge of the receiver.





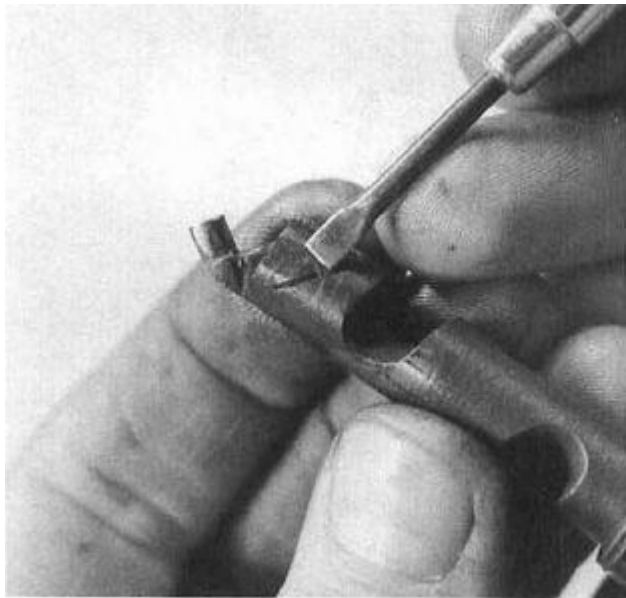
**30.** Remove the cocking lever downward and toward the rear. Remove the screws at the

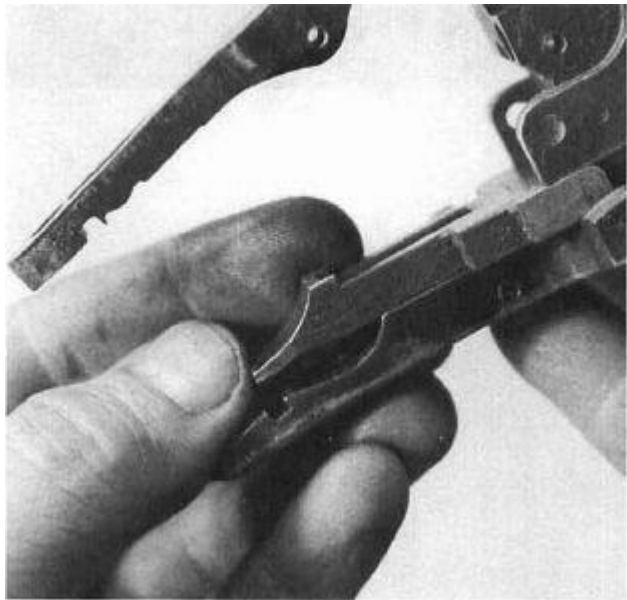
top and bottom of the insert at the rear of the receiver tangs, and slide the insert (arrow) out toward the right.



**31.** Insert a drift punch in the opening on the underside of the receiver, against the lower end of the barrel latch lever shaft, and tap it gently upward for removal.

**32.** The latch lever dog is retained in the lower end of the lever shaft by a cross screw that is contoured to match the curve of the shaft. Unless necessary for repair, the dog and screw should be left in place.





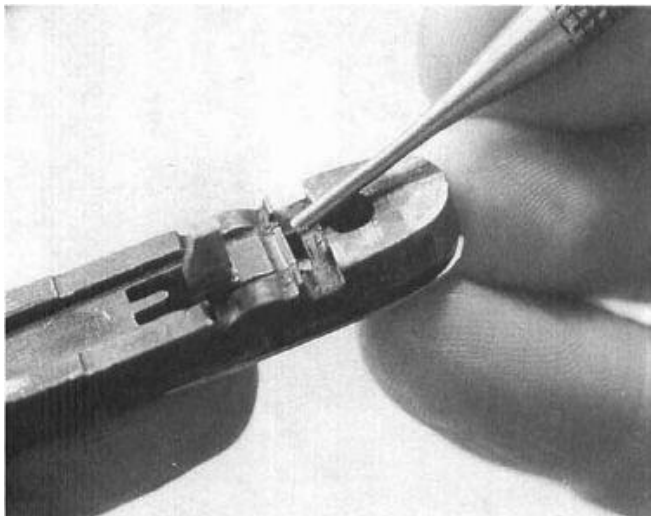
**33.** Move the barrel latch block straight out toward the rear. It may be tight, and may require nudging with a drift to free it.

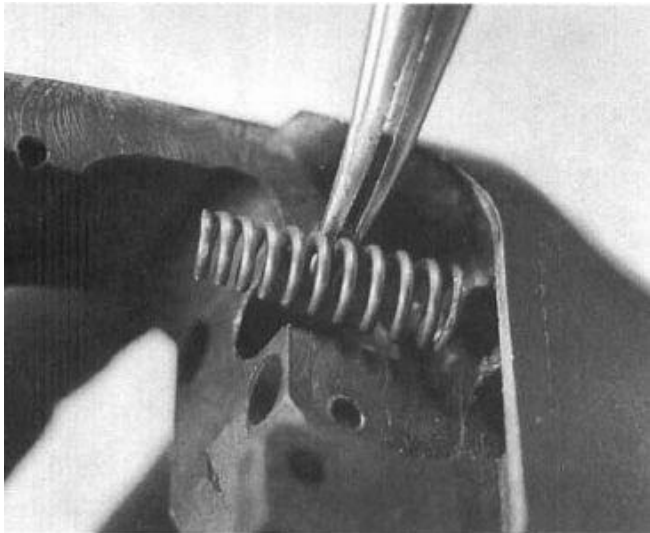




# Reassembly Tips:

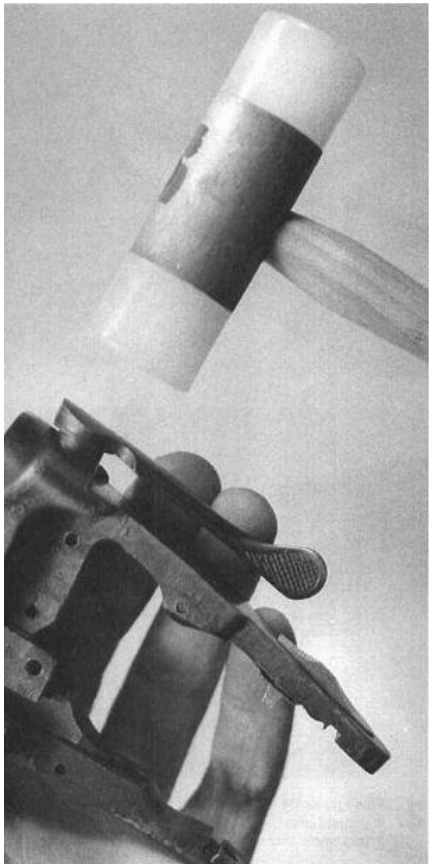
1. When replacing the small spacer block in the safety button slot, be sure it is installed between the two lower projections of the safety button, with the groove in the block at the rear and downward, as shown, to align with the spring cuts in the upper tang.



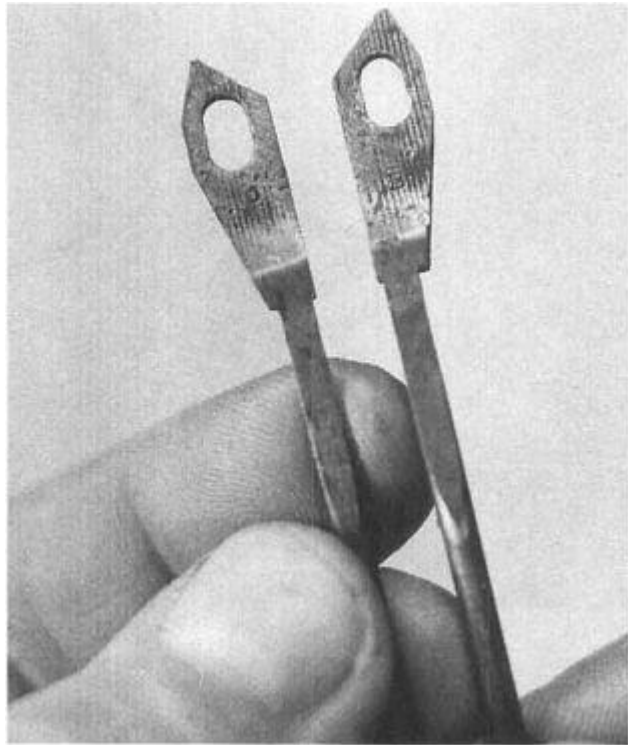


2. When replacing the barrel latch spring, note that its larger end goes toward the front, with the smaller end engaging the stud on the spring base.

**3.** When replacing the barrel latch lever, move the barrel latch block to its normal protrusion at the front, and with the latch lever centered on the upper tang, tap the lever gently with a nylon hammer to seat the dog in its recess on the block. If the lever fails to move into place, use no extreme force. Move the locking block slightly until it is in proper alignment.



4. The ejector trip rods are usually marked for each side, the ones shown having a small "O" and "B" mark to signify "over" and "below." This is not always the case, though, and it's best to keep them separate during disassembly.



# CBC Model 151





## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the CBC Model 151 also apply to the following guns:

**F.I.E. SOB**

**K-Mart Kresge Model 151**

**RLE. SSS**

**Magtech Model 151**

<b>Data:</b>	CBC Model 151
<b>Origin:</b>	Brazil
	Companhia
	Brasileira de

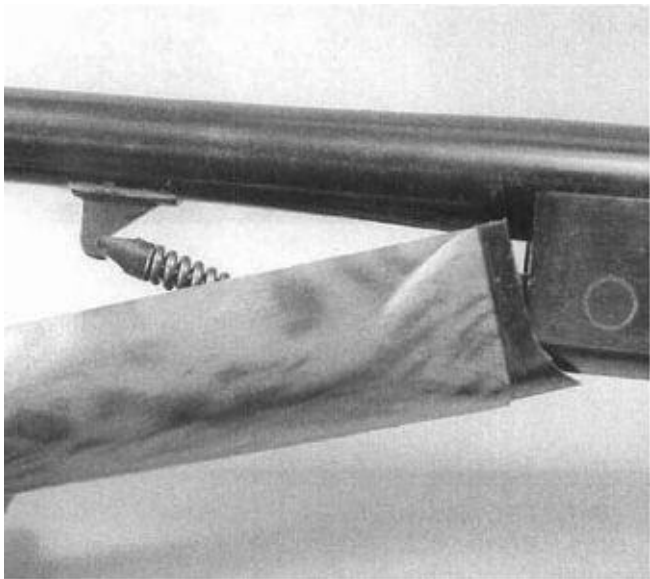
<b>Manufacturer:</b>	Cartuchos, Santo Andre Sao Paulo, Brazil
<b>Gauges:</b>	12, 16, 20, 410
<b>Overall length:</b>	46 inches (with 30-inch barrel)
<b>Barrel length:</b>	25, 26, 28, & 30 inches
<b>Weight:</b>	5-3/4 pounds

## **Disassembly:**

The CBC Model 151 has in the past been imported by several U.S. firms, and had been sold by K-Mart, F.I.E., and

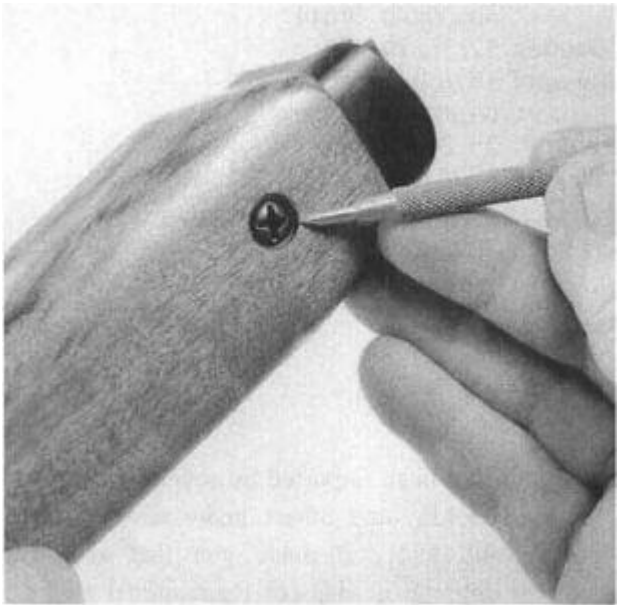
others under several model designations. It is a good, solid and well-made gun that is priced comparatively low. The current importer is Magtech Recreational products of Las Vegas, Nevada.

- 1.** Pull the front of the forend away from the barrel until the latch releases, and remove the forend assembly.



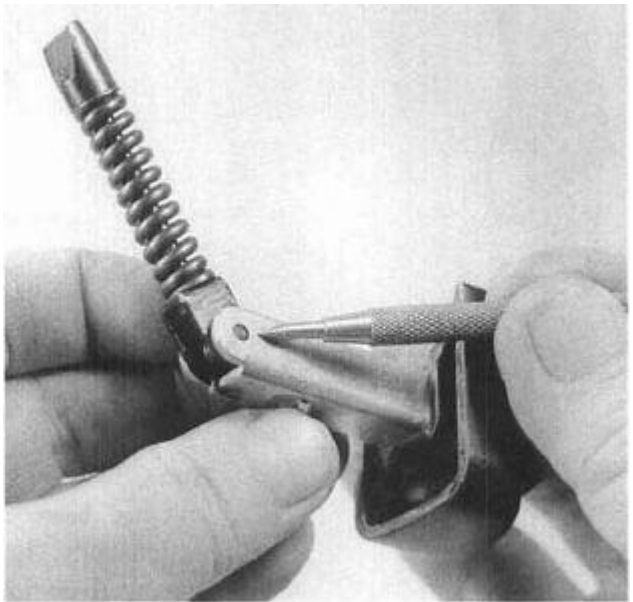
- 2.** Operate the barrel latch, open the action, and detach the barrel unit from the receiver.





**3.** A single Phillips screw retains the forend mechanism. When the screw is removed, a nut will be freed on the inside, so

take care that it isn't lost.

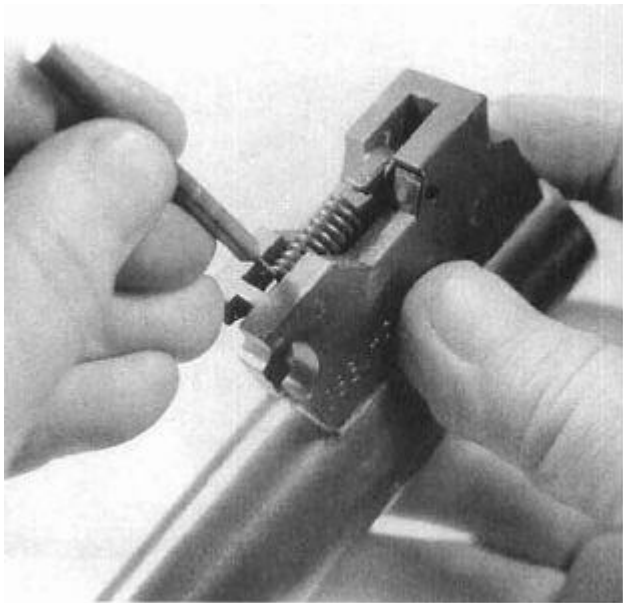


4. The latch assembly is pivoted and retained by a cross pin.

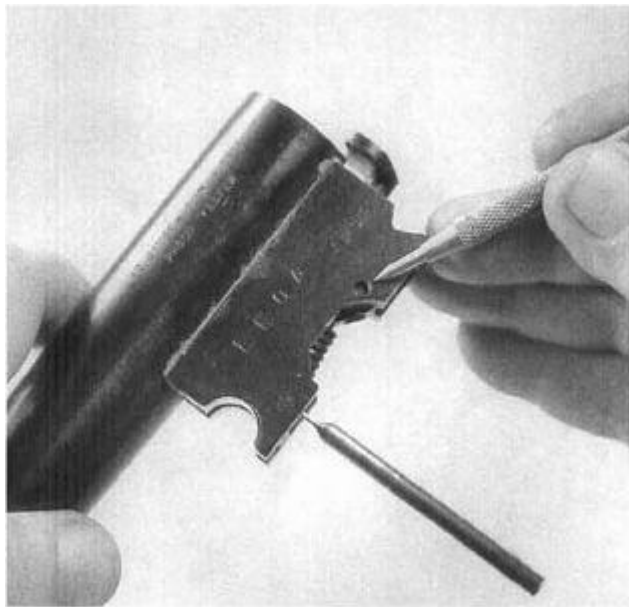


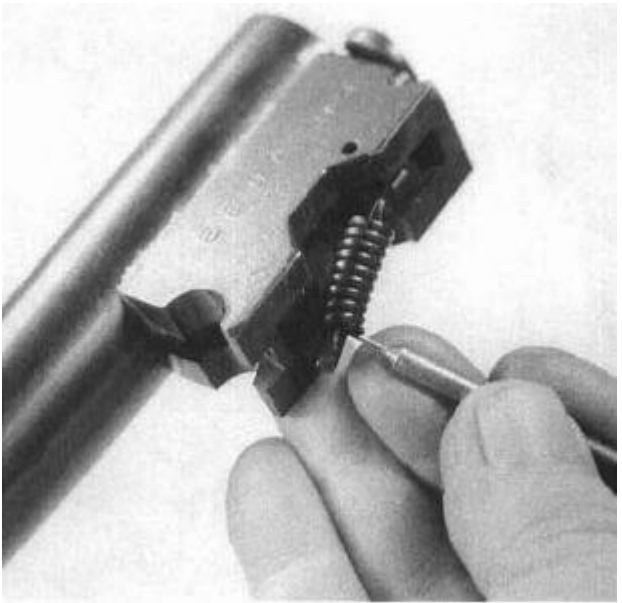
When the pin is drifted out, the small torsion-type positioning spring will be released, so restrain it. The head of the latch can be unscrewed from its shaft, and this will release the powerful latch spring. In normal takedown, this is best left in place.

- 5.** If the ejector is still in the recessed position, insert a tool in the hole in the spring guide to trap the spring. Use a tool at the front to push the ejector rearward.

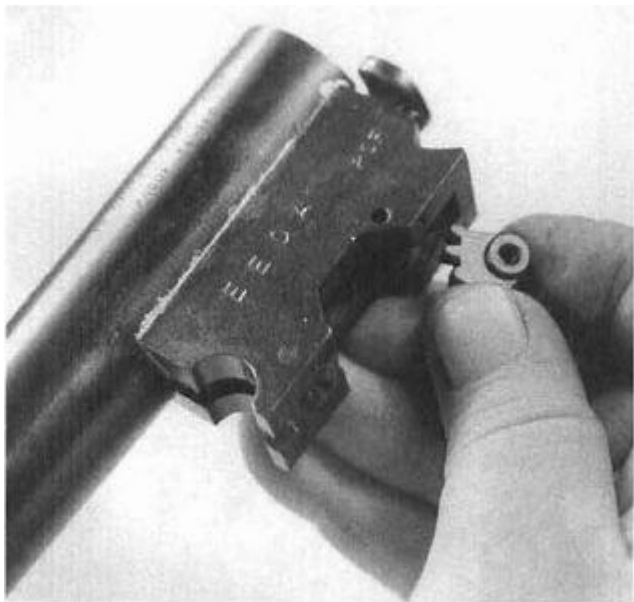


**6.** Remove the ejector lever cross pin.



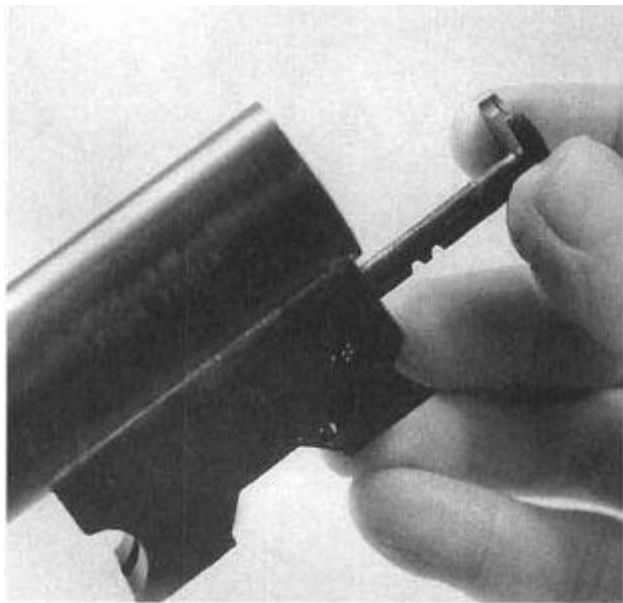


7. Remove the ejector spring and its guide. If the drift is removed, the spring will be freed, so control it.



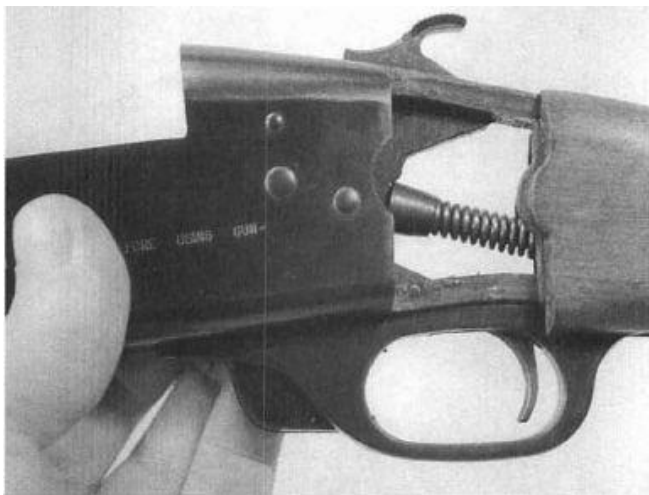
**8.** Remove the ejector lever.

**9.** Remove the ejector toward the rear.



**10.** Remove the buttplate screws,

and take off the buttplate. Use a long-shanked screwdriver to remove the stock retaining bolt. Remove the buttstock from the receiver.





- 11.** Depress the hammer slightly until the cross hole in the hammer spring guide aligns with the groove in the receiver



post at the rear, and insert a drift through the hole to trap the hammer spring.

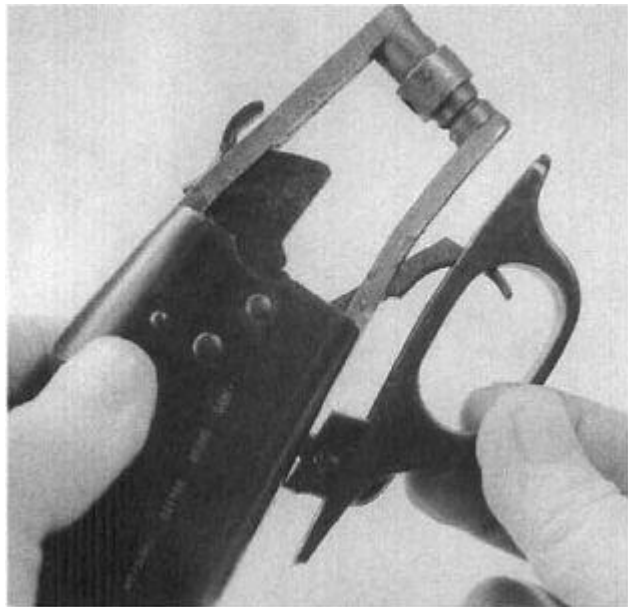


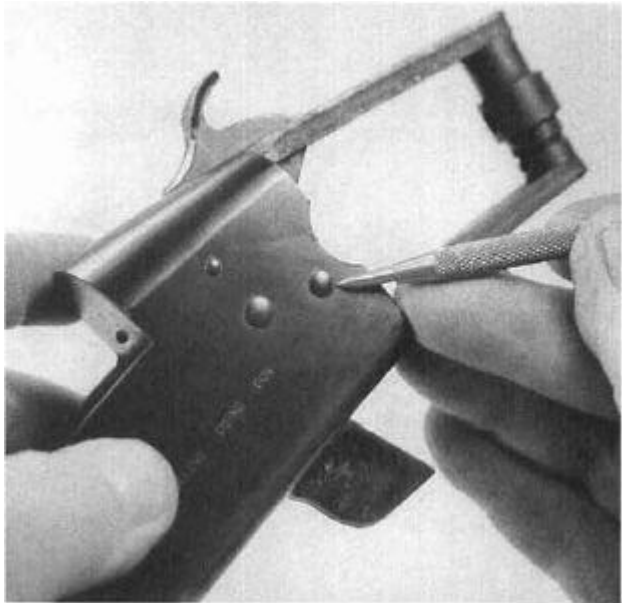
**12.** Pull the trigger, and push the hammer forward. Tilt the hammer spring assembly outward at the front and remove it. If the drift is taken out of the guide, control the powerful hammer spring.

**13.** Remove the vertical screws at the front and rear of the trigger guard.



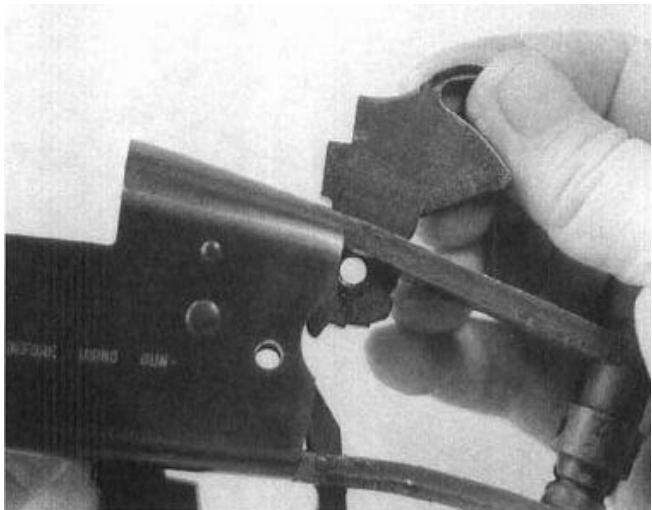
**14.** Remove the trigger guard downward.





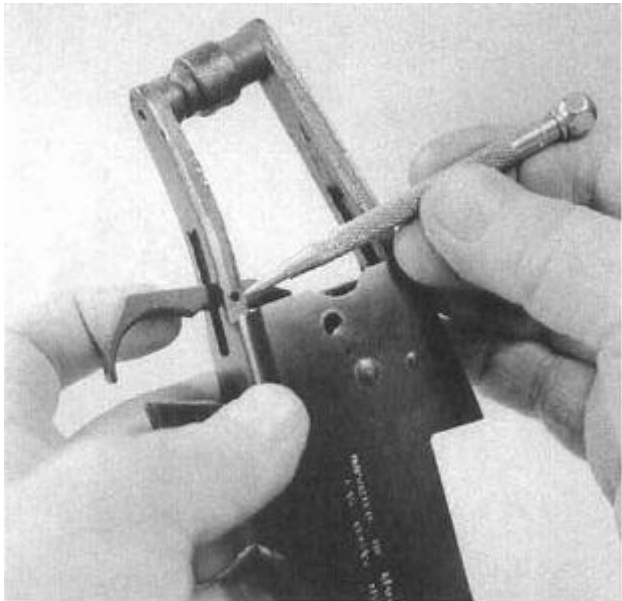
**15.** Drift out the hammer cross pin toward the right. Note that the cross pins are splined at the right tip, and all must be

drifted out toward the right to avoid damage to the receiver. When the hammer pin is removed, two bushings or spacers will be released on each side of the hammer..



**16.** Remove the hammer upward.

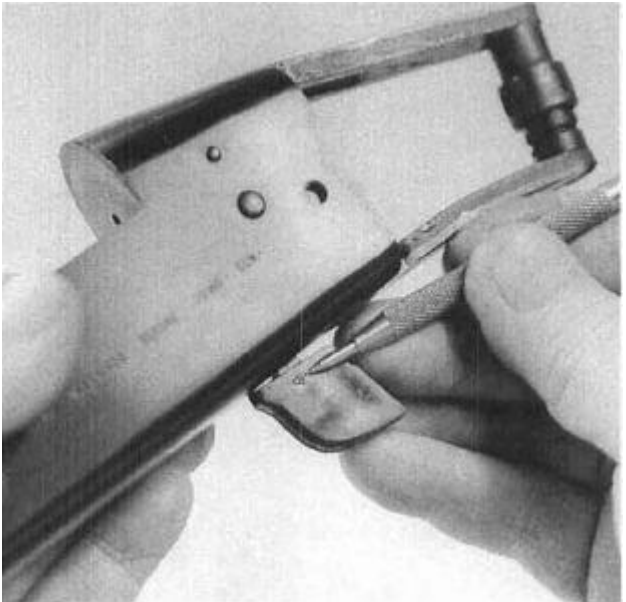
**17.** Removal of the hammer will allow the trigger to pivot beyond its usual position, relieving its spring tension. Drift out the trigger cross pin, and remove the trigger and its spring downward.

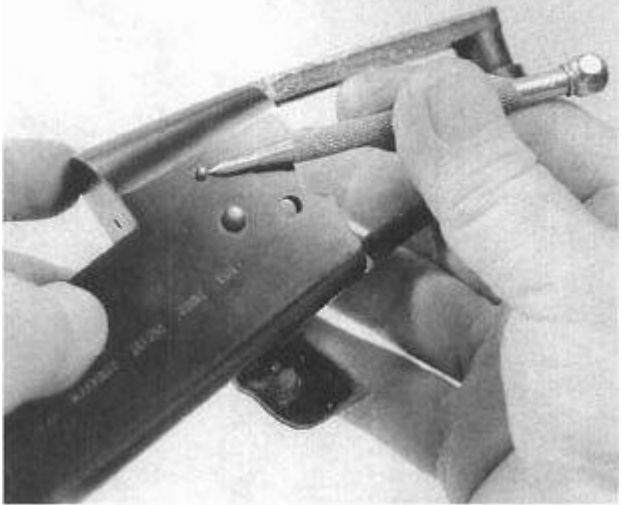


**18.** If the barrel latch is to be removed, the button must first be taken off by drifting out its small cross pin. Since this is a



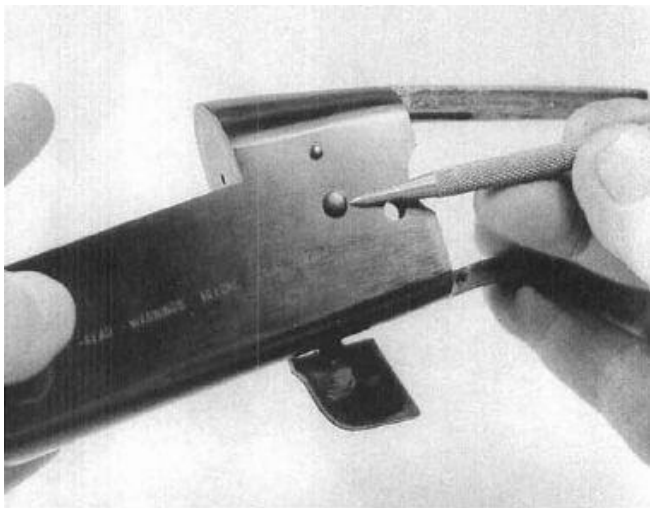
steel pin in a polymer part, it should be removed only for repair purposes.





**19.** After the button is removed, it will be necessary to drift out the firing pin cross pin, and take out the firing pin and its

spring toward the rear before proceeding.

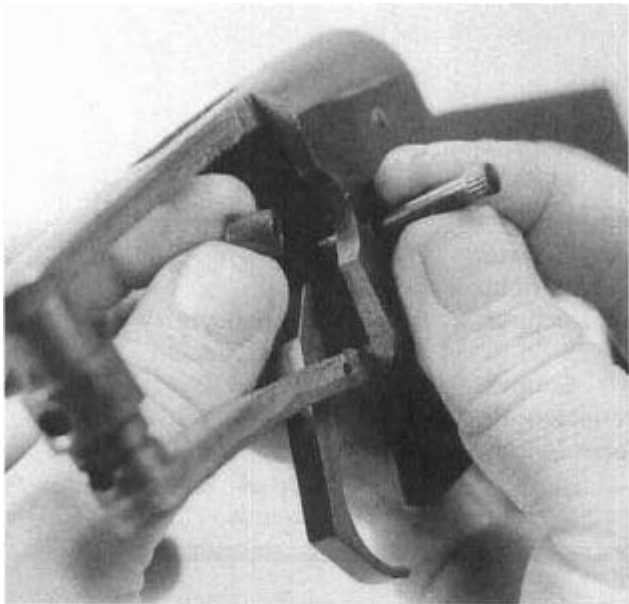


**20.** If the latch button and the firing pin and spring have been taken out (they are in place here),

then drifting out the latch pivot pin will allow the barrel latch and its torsion spring to be taken out toward the rear, within the receiver.

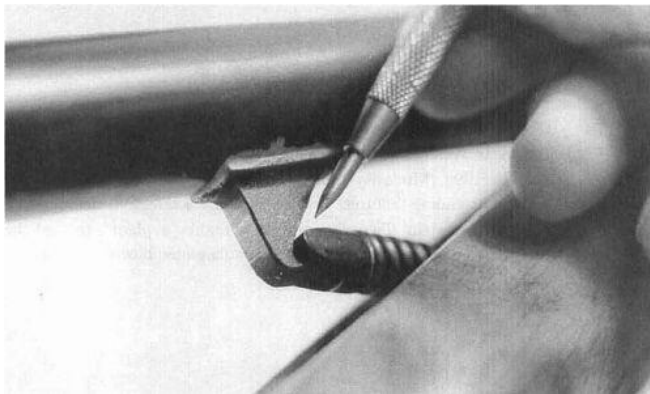
# Reassembly Tips:

1. When replacing the cross pins in the receiver, remember that the pins have splined tips on the right side, and they must be driven in toward the left. When installing the hammer, fit the spacers on the pin as it is driven across. Be sure the trigger is positioned correctly.



2. When installing the trigger guard, slightly depress the barrel latch button to properly align the screw holes.





3. When installing the forend, be sure the head of the forend latch is centered on the hook on the barrel before closing the forend into place.



# **EAA Baikal IZH-18**



<b>Data:</b>	EAA Baikal IZH-18
<b>Origin:</b>	Russia Izhevsky
<b>Manufacturer:</b>	Mechanicheskyy Zavod, Izhevsk, Russia
<b>Gauges:</b>	12, 16,20, and .410
<b>Overall length:</b>	44-1/2 inches
<b>Barrel length:</b>	28-1/2 inches (others offered)
<b>Weight:</b>	6.4to 6.6 pounds

European American Armory began

importing this fine little single-shot in 1998. Modestly priced, it has excellent workmanship and some outstanding features. Two of these are a selective ejector and a decocking system. Two versions are offered - a plain gun, and the one shown here, with a ventilated rib and a plated receiver.

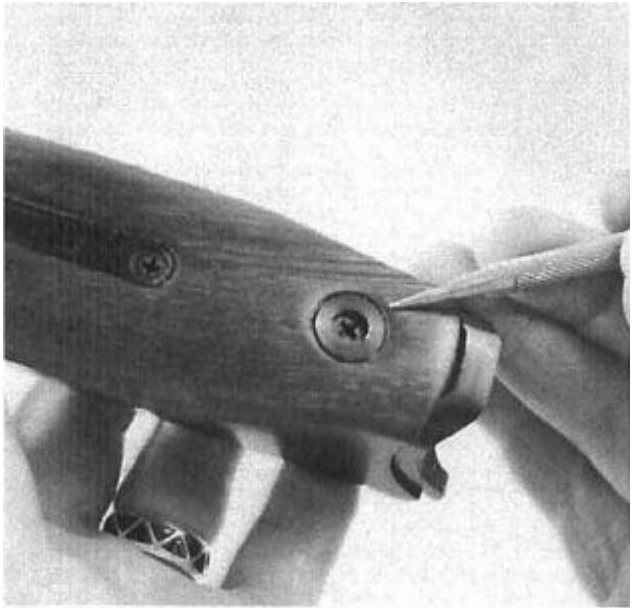
# Disassembly:

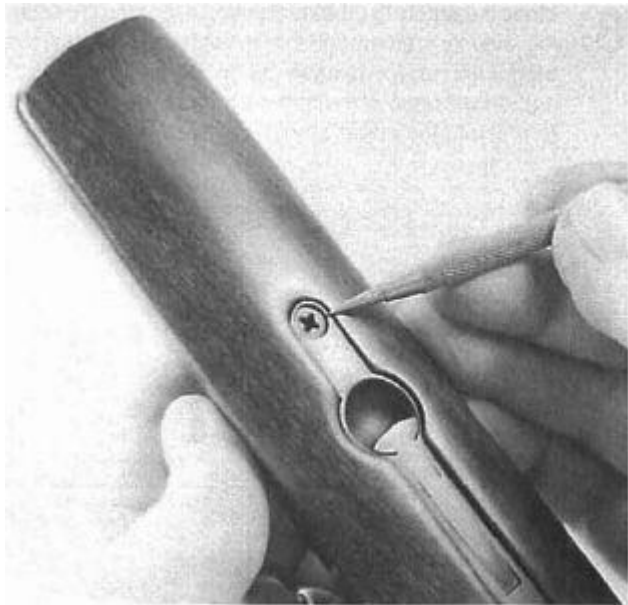
1. Open and close the action to cock the internal hammer. Put the manual safety in on-safe position. Pull the forend latch lever outward, and tip the forend away from the barrel for removal. Operate the barrel latch, and separate the barrel unit from the receiver.



- 2.** The two rear Phillips screws in the forend retain the forend iron, and it is taken out rearward. Note that the rear

screw has a separate  
escutcheon.

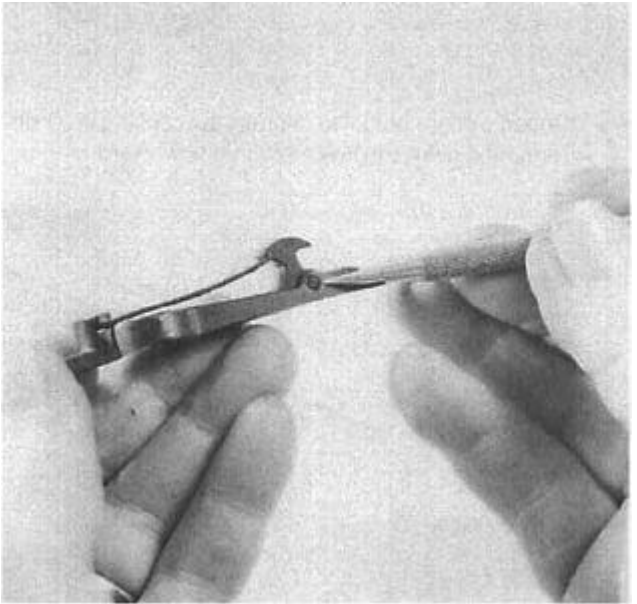




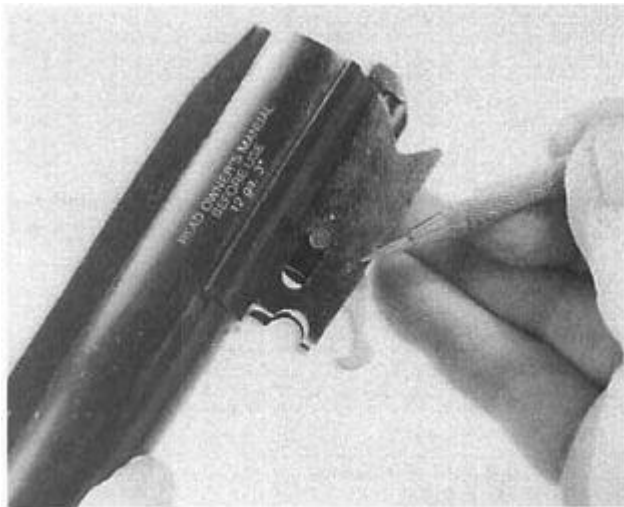
- 3.** Taking out the front screw will allow removal of the forend latch. Note that this screw is threaded into an oblong



washer on the inside. The three forend screws are not identical so keep them separate for reassembly.



4. The forend latch is retained by a cross pin. The blade-type spring is staked in place, and should be removed only for repair.
  
5. The ejector sear is pivoted and retained by a cross pin. Caution: The plunger and coil spring will be re-leased, so control them.



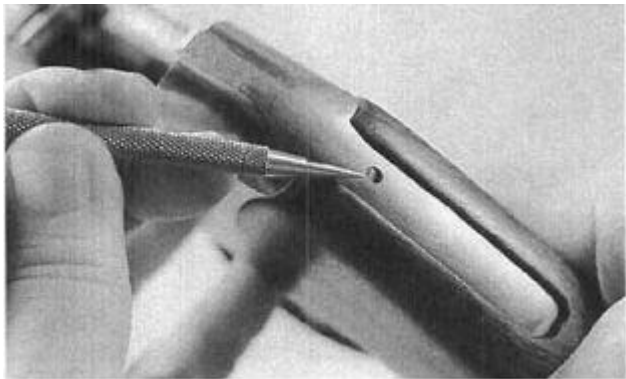
6. The ejector should be removed only if necessary for repair. Drifting out the small retaining pin and the larger cocking pin will allow the ejector to be taken out toward the rear.

Caution: Control the spring.

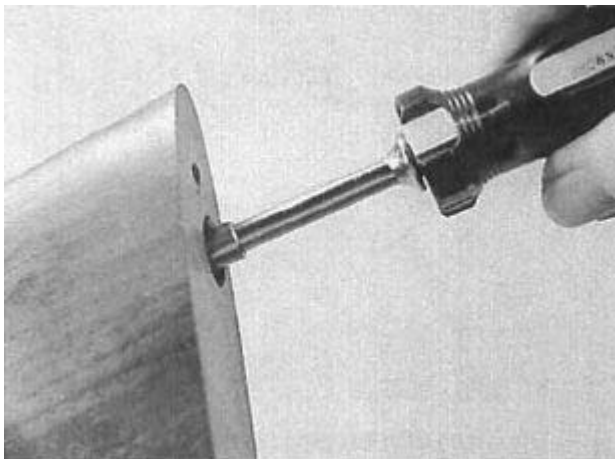




7. Insert a finger or tool to depress the cocking lever detent, and allow the lever to move downward.

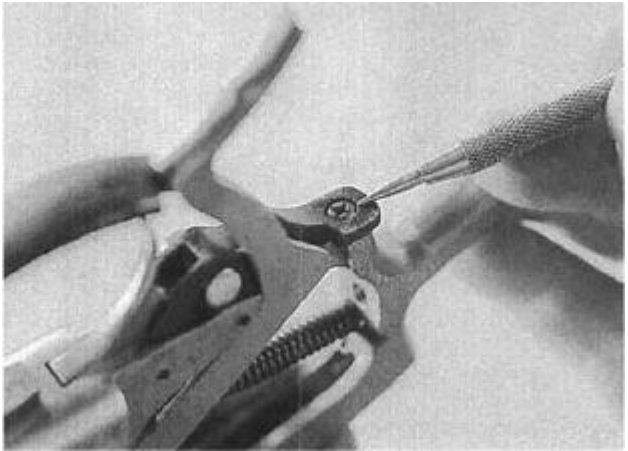


8. Move the safely to off-safe position. Depress the cocking lever just far enough that resistance is felt, pull the trigger and slowly release the cocking lever. This operation will uncock the hammer, and the indicator will retract into the upper tang, as shown.



9. Take out the two slotted screws at the rear, and remove the recoil pad. The stock mounting bolt is a slotted screw, and it is only about two inches inside, so a regular large

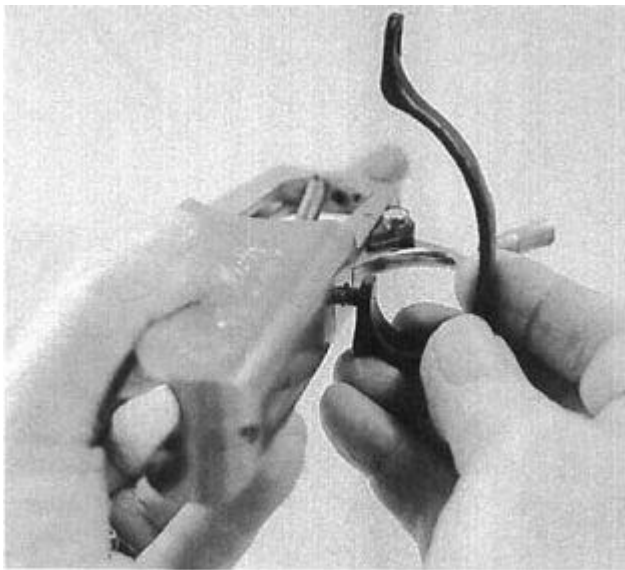
screwdriver can be used.  
Remove the buttstock toward  
the rear.



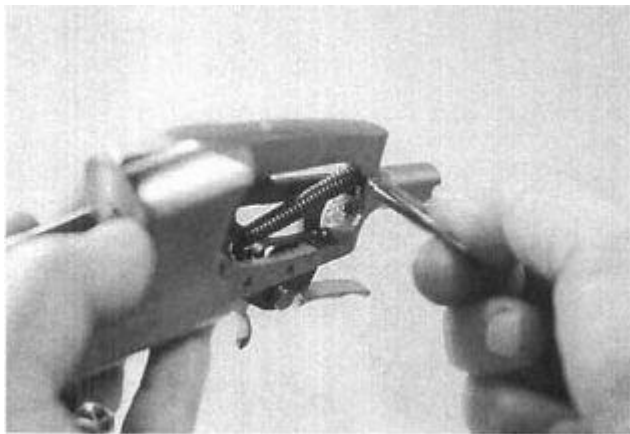
**10.** Remove the small Phillips  
screw at the rear of the trigger  
guard.

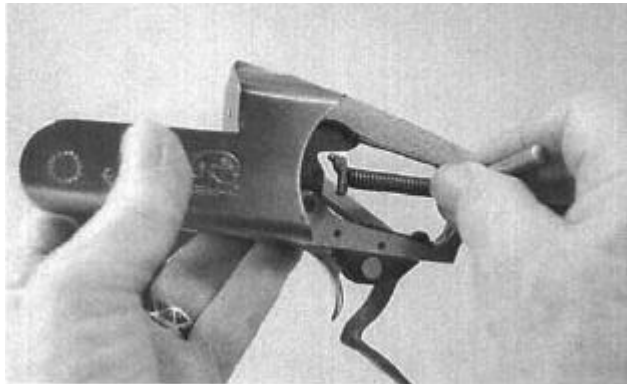


**11.** Turn the trigger guard out toward the left, and remove it downward.



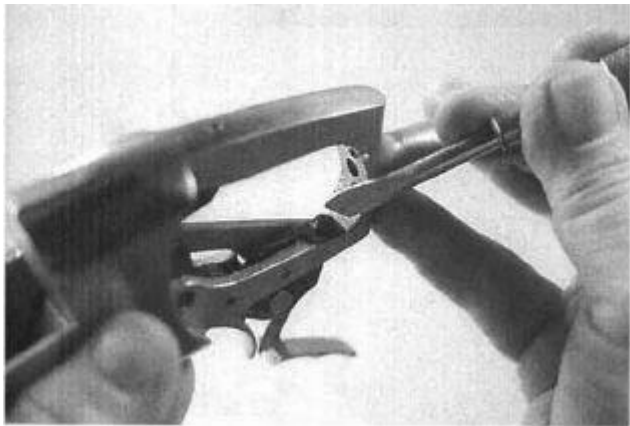
**12.** Depress the cocking lever to re-cock the hammer, and insert a small tool through the cross-hole in the hammer spring guide. Pull the trigger and ease the hammer down to fired position.





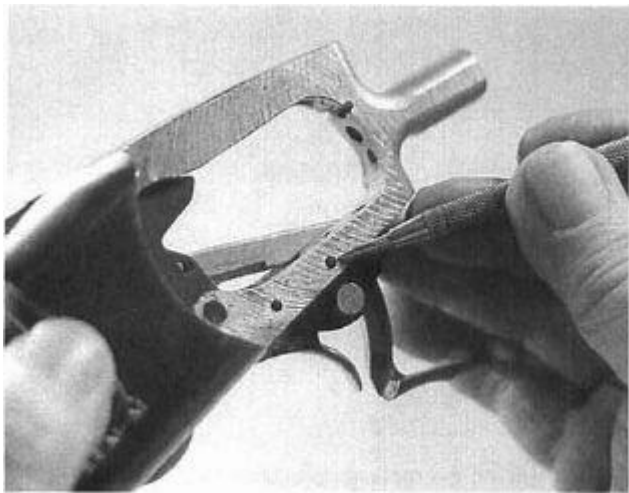
**13.** Be sure the hammer is all the way forward. Lift the front of the hammer spring and guide assembly, then tilt the front outward for removal. If necessary for repair, you can use locking pliers and a slightly-opened vise to

remove the tool and release the spring. If this is done - Caution! The spring is fully compressed.

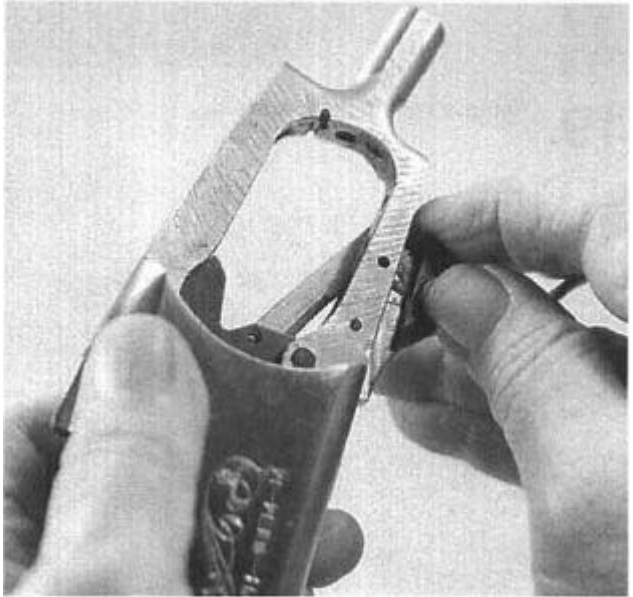


**14.** Use an offset screwdriver, or one with an angled tip, as shown, to remove the trigger

spring screw and take out the spring.

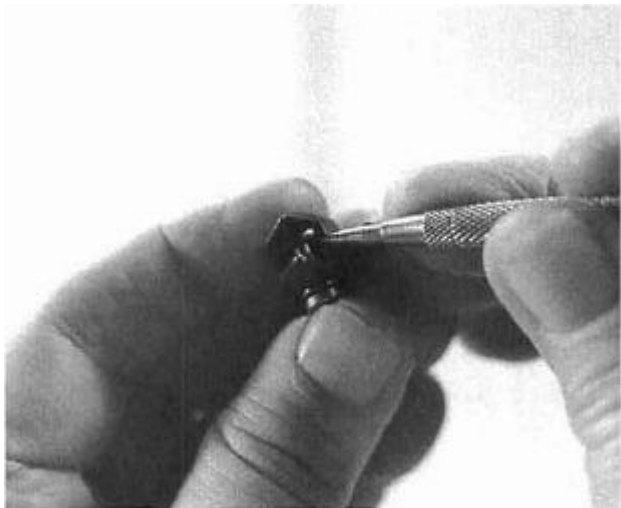


**15.** Drift out the safety housing cross pin.



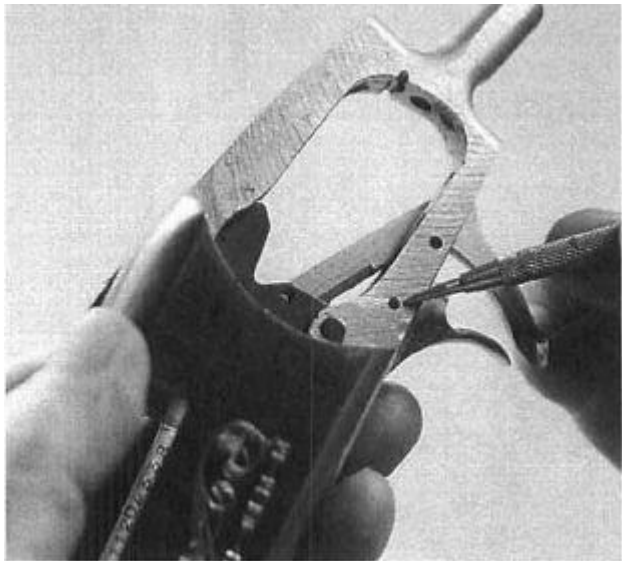
**16.** Remove the safety housing downward.

**17.** If necessary for repair, insert a small tool on the right side just above the cross piece to depress the safety detent plunger. The cross piece can then be removed. Caution: Control the plunger and spring.



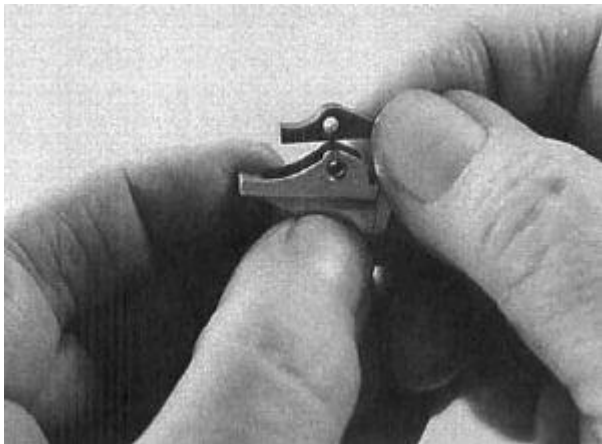
**18.** Drift out the trigger cross pin.



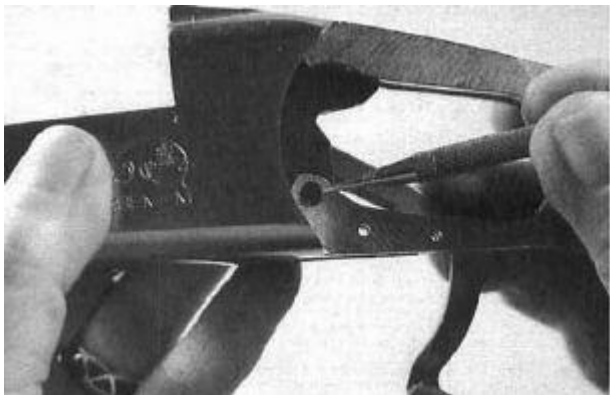




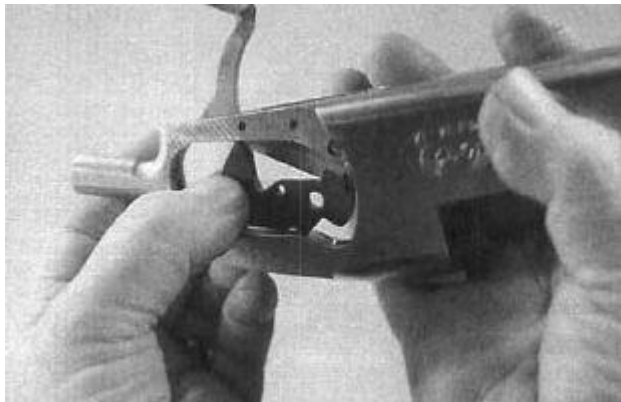
**19.** Remove the trigger downward.



**20.** The sear is also pivoted and retained by the trigger cross pin, and it can now be lifted out of its recess in the top of the trigger. Note its orientation for reassembly.

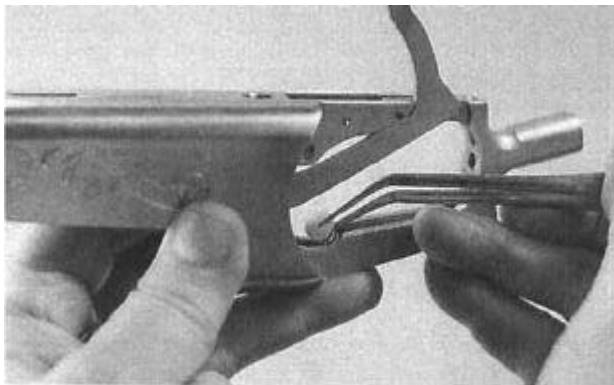


**21.** Drift out the hammer cross pin.



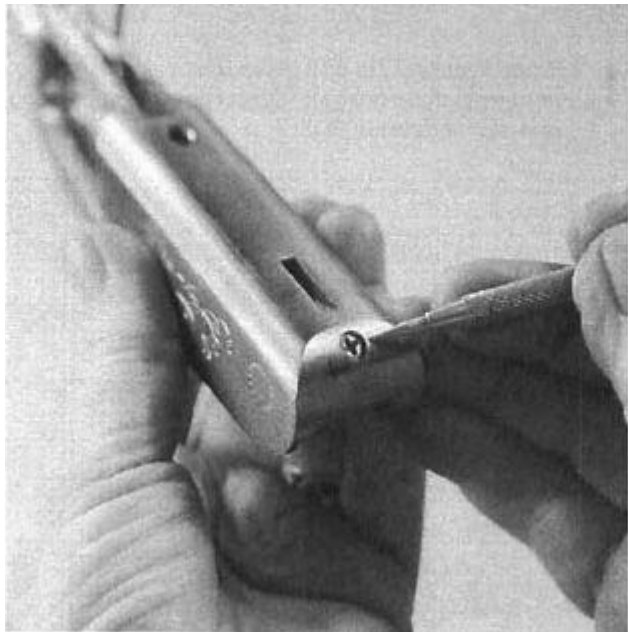
**22.** Invert the receiver to take out the hammer, as the indicator and its spring will be freed as the hammer is removed. Move the hammer rearward, turn it to the position shown, and take it out to the side.

**23.** Remove the cocking indicator and its spring.

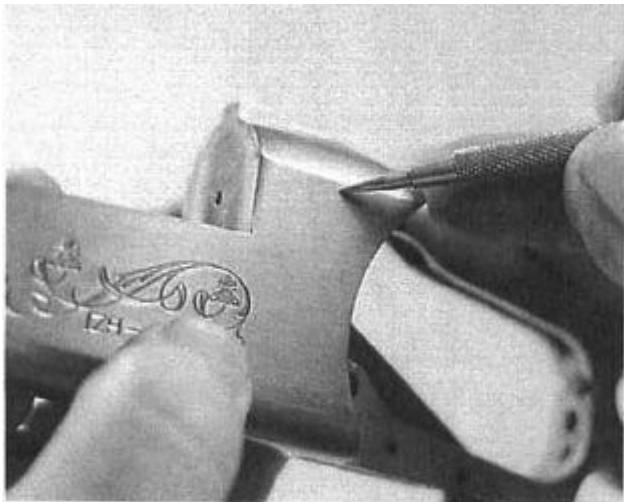


**24.** Removal of the Phillips screw at the front of the receiver will allow the bottom plate to be taken out. This will give access to the cross pin that

retains the barrel latch detent and its coil spring. However, the plate is tightly fitted and finished-over, and some marring will be inevitable. The plate should be removed only for repair.

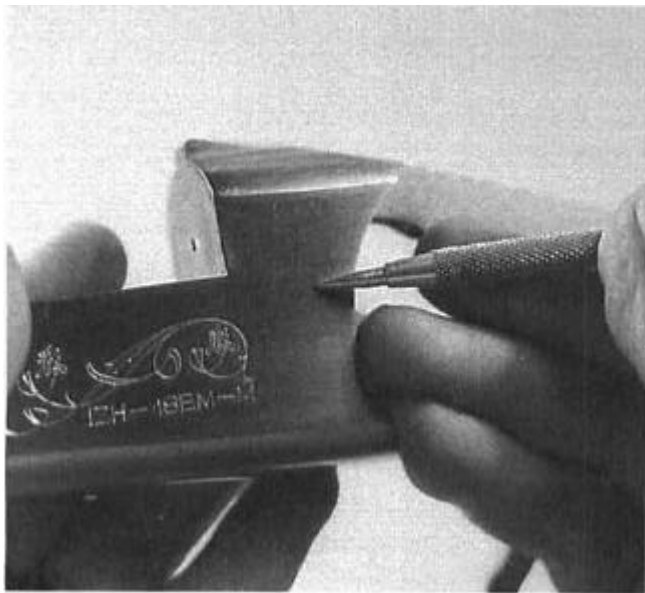






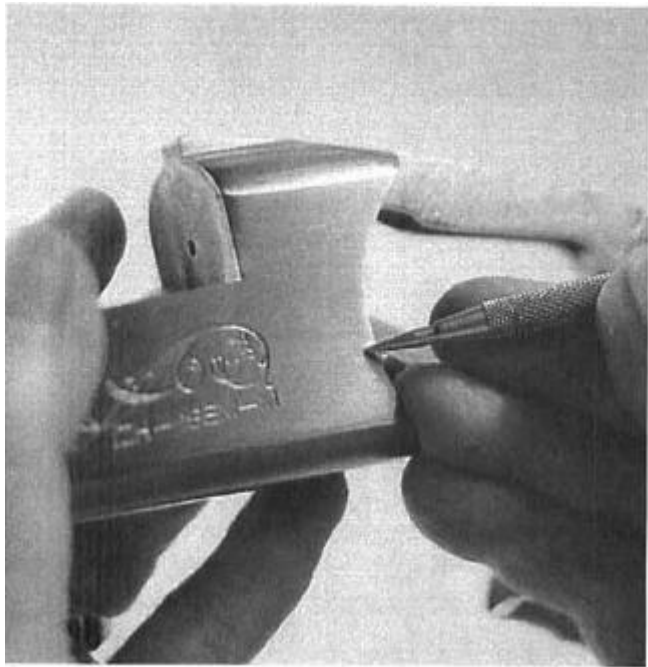
**25.** If firing pin replacement is necessary for repair, the firing pin and its coil return spring are retained by this cross pin, and they are taken out rearward. This pin is finished-

over, and the finish will be marred.



**26.** If the combination cocking and

barrel latch lever has to be removed for repair, this finished-over cross pin retains the coil spring that powers the lever. Again, the finish will be marred. Control the spring.

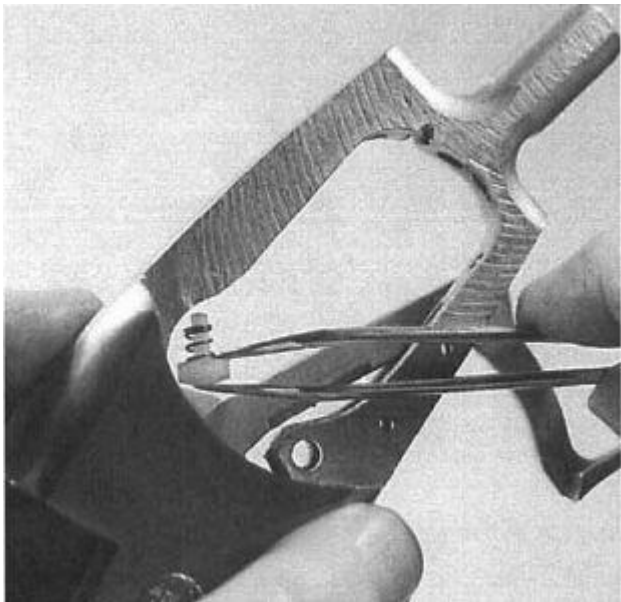


**27.** This finished-over cross pin pivots and retains the cocking

lever, and the lever is taken out toward the rear. In normal takedown, this system is left in place.

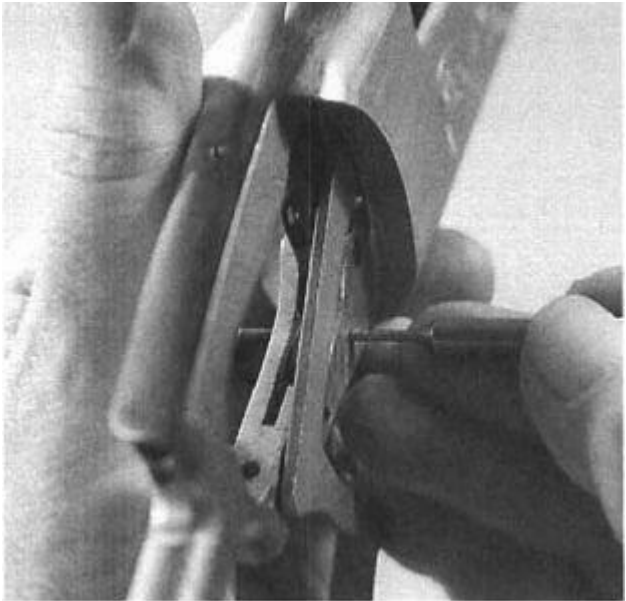
# Reassembly Tips:

1. When installing the cocking indicator and its spring, remember that it goes into its recess in the upper tang at a slight rearward angle.

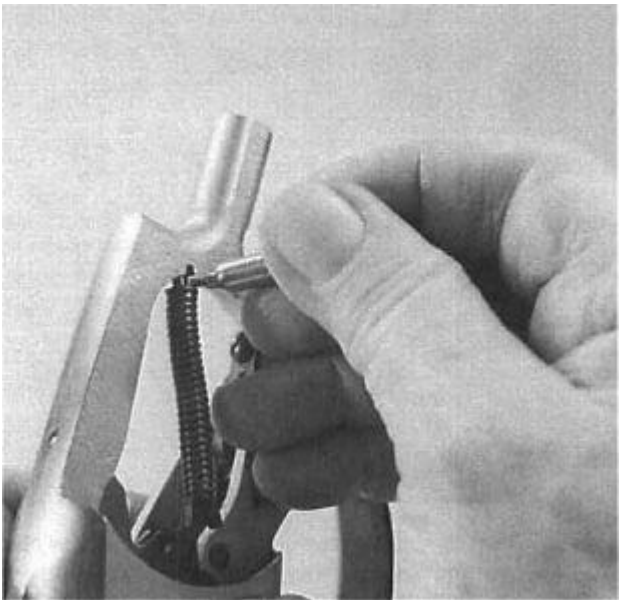


2. When installing the sear and trigger, insert a tool from the opposite side to align the sear as the cross pin is drifted back

in. Or, a slave pin can be used.







- 3.** Insert the rear tip of the hammer spring guide first, then swing the front into position to engage the hammer.



# **EAA Baikal IZH-27**



**Data:**

EAA Baikal IZH-  
27

**Origin:**

Russia

Izhevsky

**Manufacturer:**

Mechanichesky  
Zavod, Izhevsk,  
Russia

**Gauges:**

12, 16,20,28, and  
.410

**Overall  
length:**

45 inches

**Barrel length:**

28 (others offered)

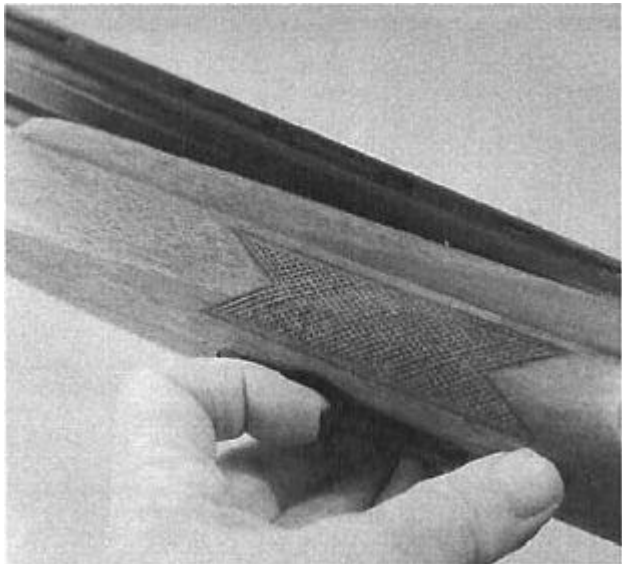
**Weight:**

7.7 pounds

This nicely-made over/under was introduced by European American Armory in 1999. Its good balance and relatively low price have made it quite popular. As with most over/under guns, it is somewhat more complicated than other types of shotguns. The amateur should approach total takedown with caution.

# Disassembly:

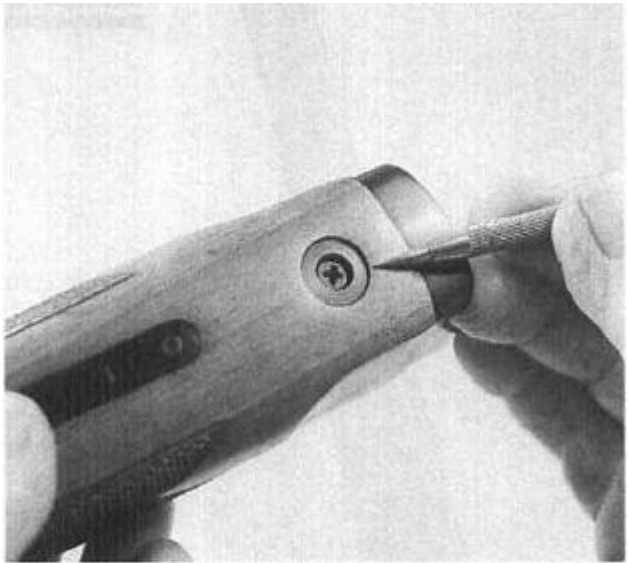
1. Open and close the action to cock the internal hammers. Pull the forend latch lever outward, and tip the forend downward for removal. Operate the barrel latch, tip the barrel unit downward, and remove it upward.

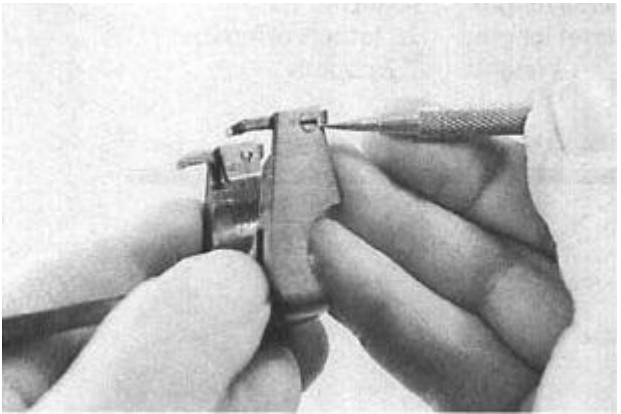


2. The forend iron is retained by two screws, on the inside and outside. The outside screw has an escutcheon, which may come off with the screw.

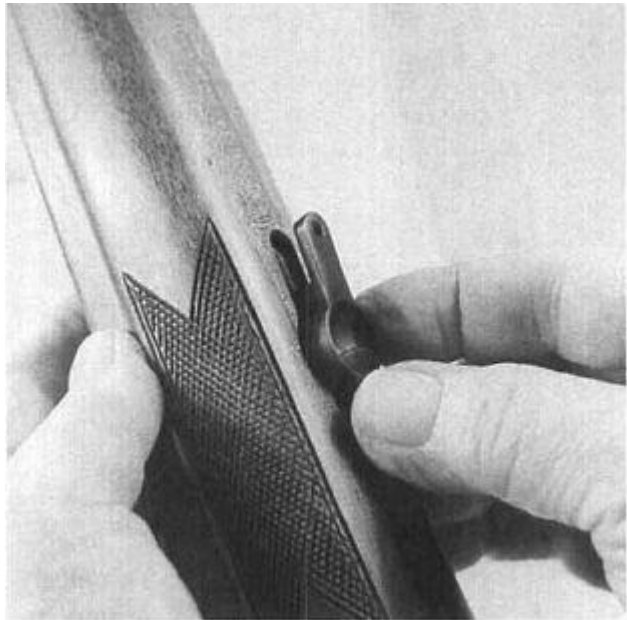


Remove both screws, and take out the forend iron toward the rear.



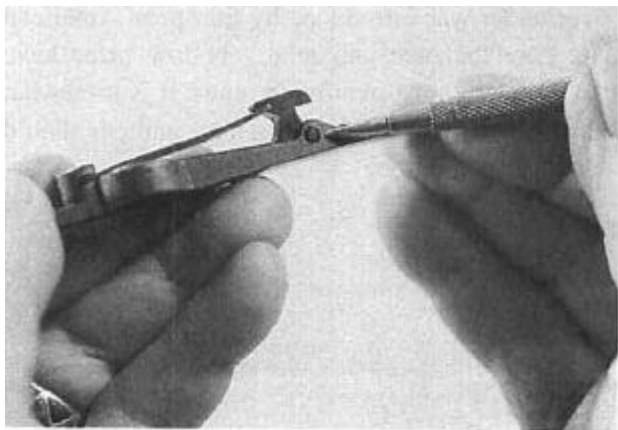


- 3.** The ejector sears are pivoted and retained by small screws. As the screws are removed, the coil sear springs will be released, so control them.



- 4.** Remove the forward inside screw, and push the forend latch assembly outward for

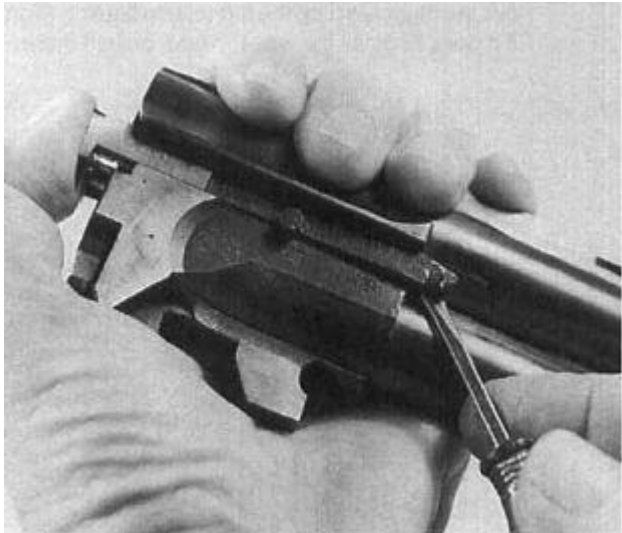
removal. Note that this screw has a small washer, and take care that it is not lost. The three forend screws are not identical, so keep them separate for reassembly.



**5.** Drifting out this cross pin will

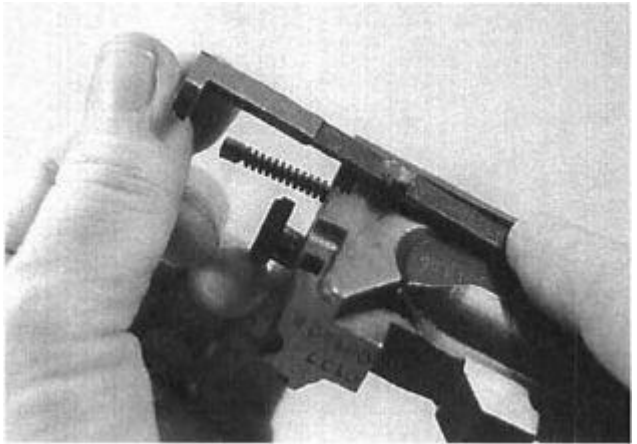
free the forend latch lever. The blade-type spring is staked in place in its slot, and is removed only for repair.

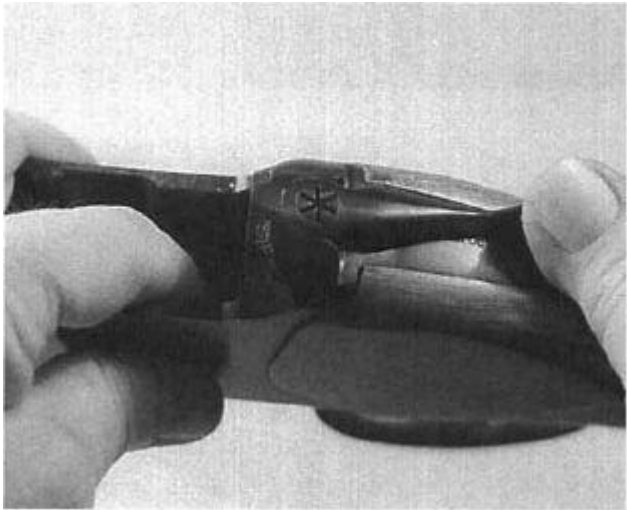
- 6.** Restrain the ejector at the rear- (Caution: The spring is very strong.) and lift the front of the ejector very slightly, just enough to free it for rearward movement.



7. When the ejector has moved far enough to the rear to clear its dovetailed portion, it can be lifted off. The plunger and coil spring can then be removed.

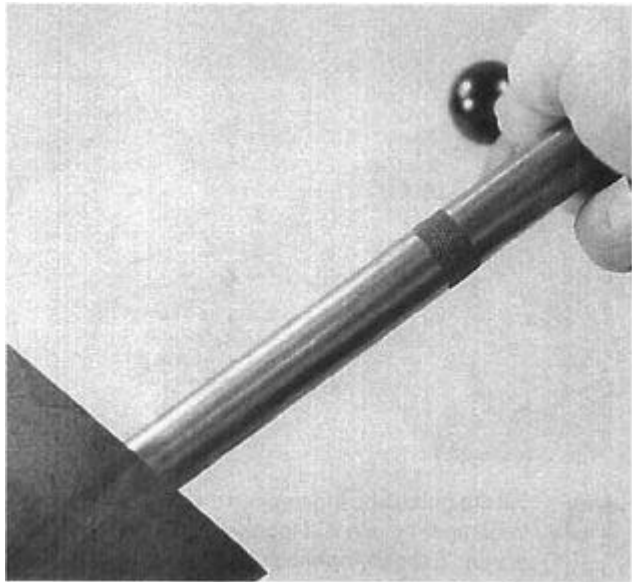
Repeat this operation for the other ejector.





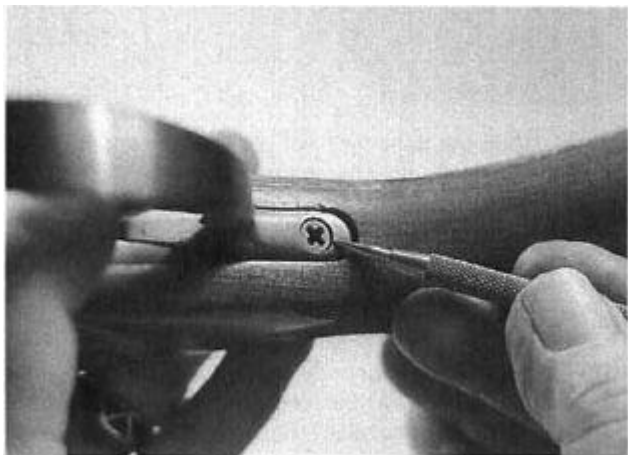
8. Restrain the barrel latch lever, and use a tool or fingertip inside the receiver to trip the latch detent. Allow the lever to move back to center.





9. Remove the two screws at the rear and take off the recoil pad. Use a B-Square stock wrench, as shown, or a

screwdriver, to back out the stock mounting bolt. The stock is not yet ready for removal.



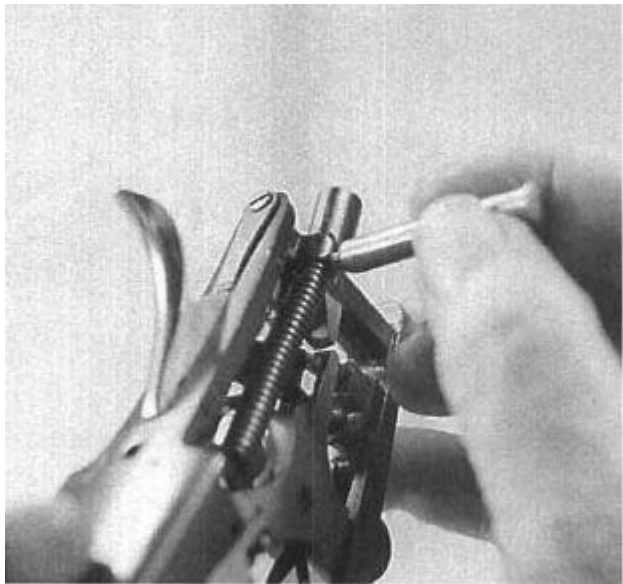
- 10.** Remove the small Phillips wood screw at the rear of the trigger guard, and take off the

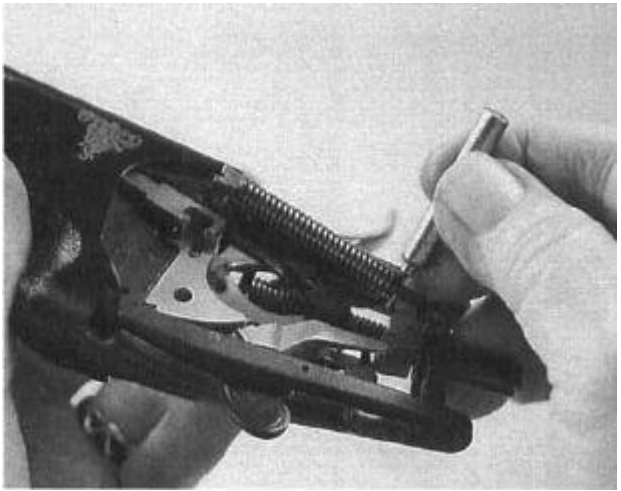
buttstock toward the rear.

- 11.** Unscrew the trigger guard (counter-clockwise, bottom view) and remove it.



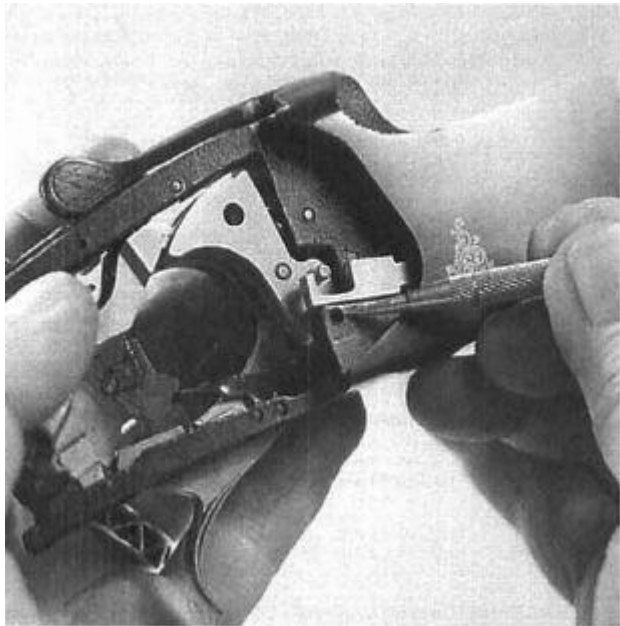
**12.** Insert a slim tool (or a piece of wire) through the cross-hole in the hammer spring guide at the rear. Do this on the right side first, as the right one is the first to fire. Move the safety to off-safe position, and pull the trigger to drop the hammer to fired position. If it doesn't go all the way forward, push it there.





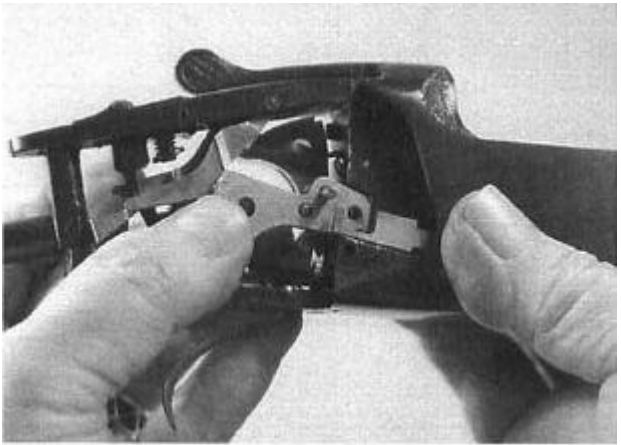
**13.** Tilt the guide and the trapped spring outward at the front, and remove it. It is possible, using locking pliers and a slightly-opened vise, to take off the spring. If you do this -

Caution: The spring is fully compressed. Repeat these two steps to remove the other spring. To release the left hammer, it may be necessary to manually move the sear upward.



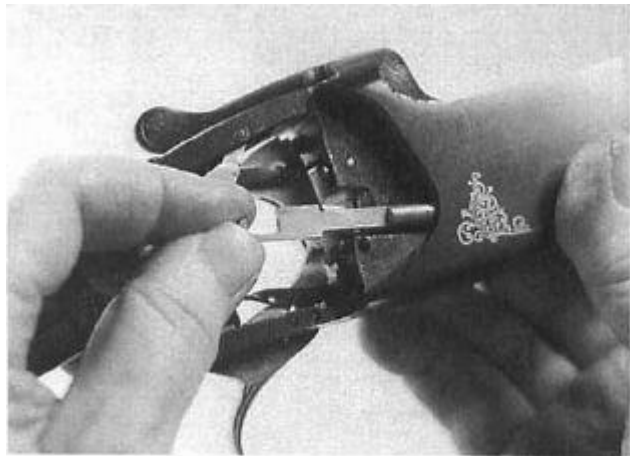
**14.** Drift the hammer pivot pin toward the left until it clears the right hammer.





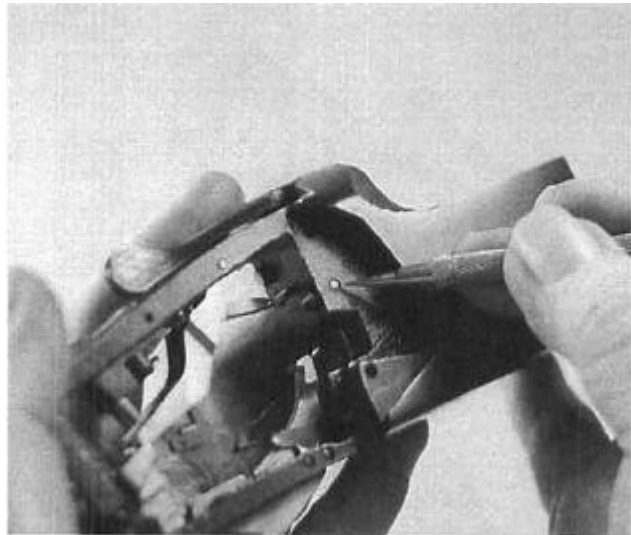
- 15.** Tip the hammer back, and lift it at the front to clear its side pin from the recess in the cooking rod, freeing it for removal.

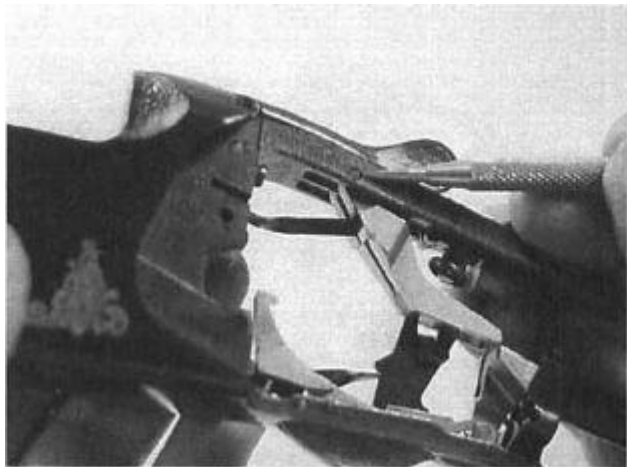
**16.** The cocking rod can now be taken out toward the rear. After drifting the hammer pivot the rest of the way out, repeat these steps to remove the left hammer and cocking rod. Keep the parts for each side separate for reassembly.



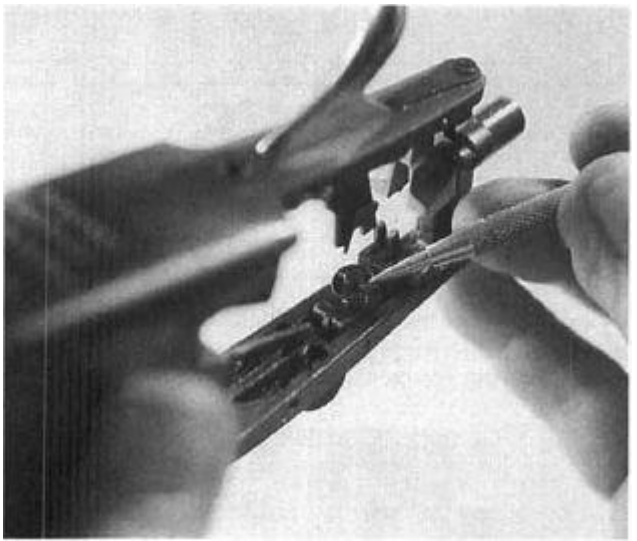
**17.** The upper and lower firing pins are now accessible for removal. The retaining cross pins are drifted out, and the firing pins and their coil return springs are taken out toward the rear. Control the parts

during removal, as the springs are partially compressed and these small parts are easily lost. If removal is not necessary for repair, leave them in place. If the firing pins are removed, note that they are not interchangeable.





**18.** The sears are retained in the top of the receiver by a cross pin. Drift the pin across in intervals, to release one at a time. Control the spring during removal.



**19.** The manual safety system should be removed only for repair. To take it out, you must depress the flanged washer on the button shaft, and push out

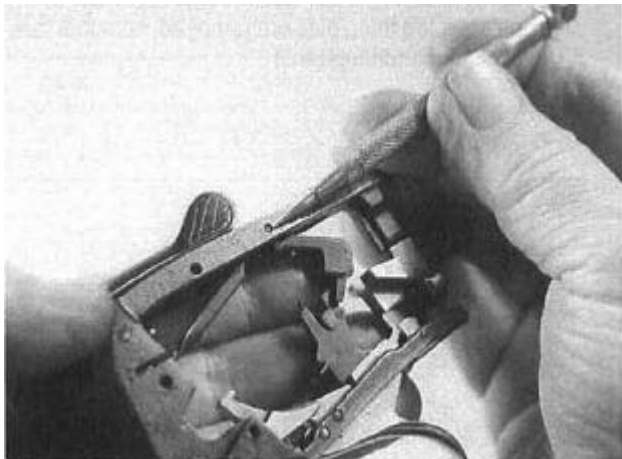
the small cross pin. The button must be held against a firm surface during this operation. Caution: The detent spring will be fully compressed, so control the washer.





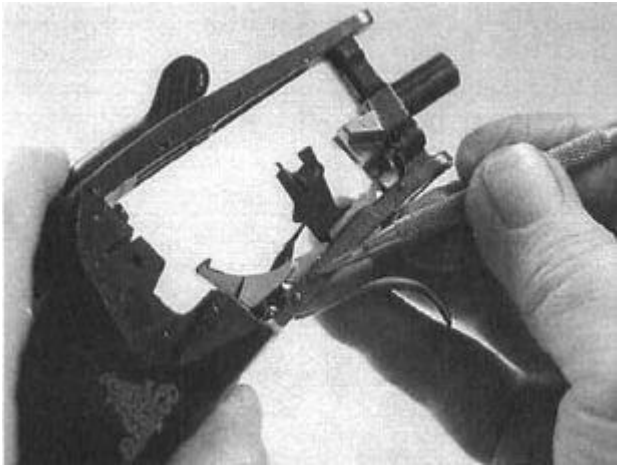
**20.** Remove the safety button upward.

**21.** The internal safety block is retained at the front by a cross pin that passes through the semicircular detent lever. The detent lever pivots on a riveted cross pin in the block, and it is not routinely removed. The same applies to the sear contact levers at the rear, and their small coil springs. Remove only for repair.

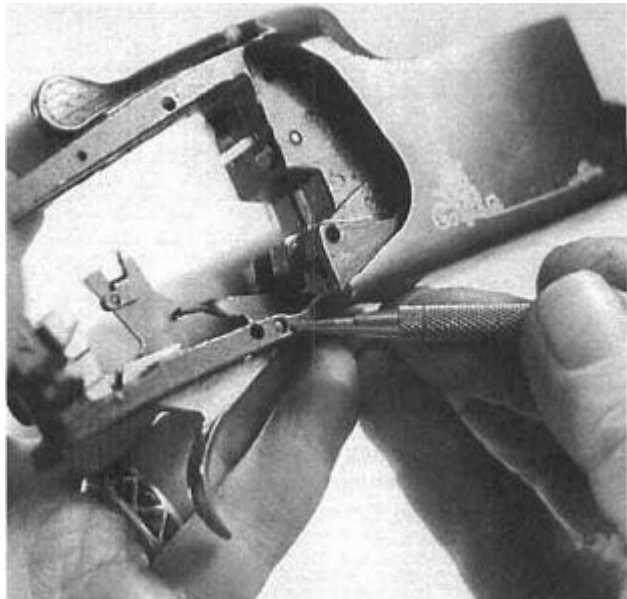


**22.** The automatic safety-set bar can now be taken out rearward.

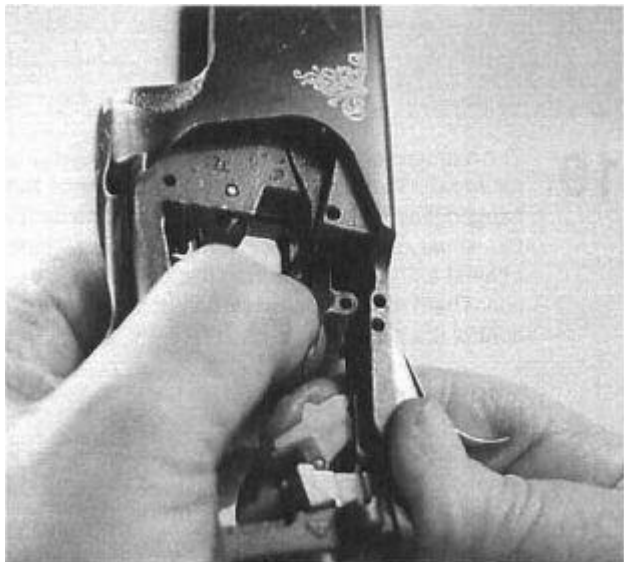




**23.** Drift out the cross pin that pivots and retains the hammer interceptor. Caution: Control the spring, as the interceptor is removed.

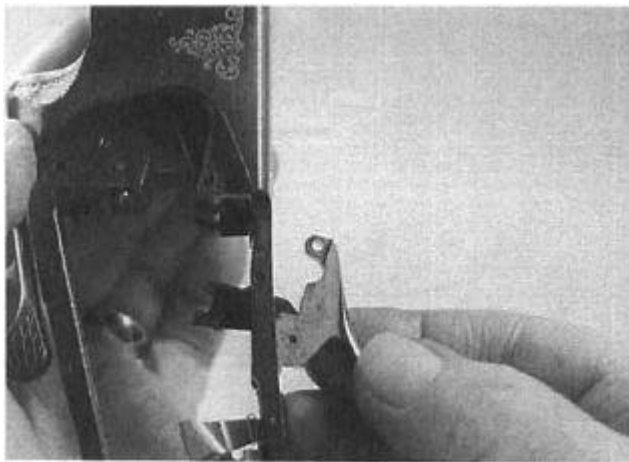


**24.** Drift the trigger cross pin toward the left, just far enough to clear the action-open cam bar.



**25.** Remove the cam bar  
(disconnecter).

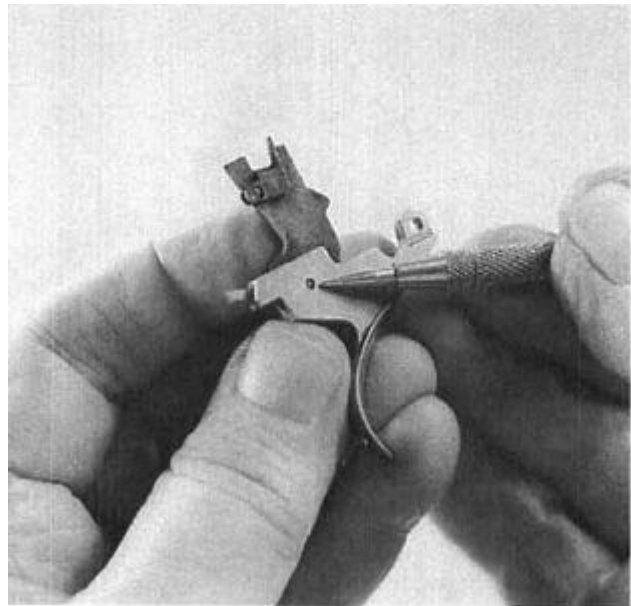
**26.** Drift the trigger pin out, move the trigger forward, and remove it downward.

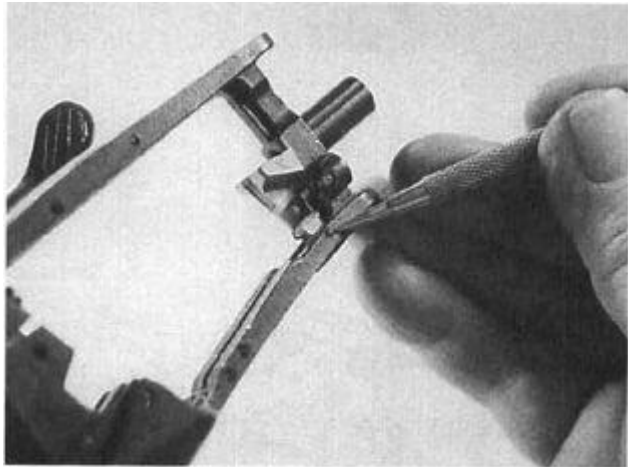


**27.** If necessary for repair, the small cross pin in the trigger can be drifted out to free the

trigger lever assembly. If this is done, control the small vertical coil spring at the rear. The stop lever at the top and its coil spring are retained by a riveted pin, and it is not routinely removed.

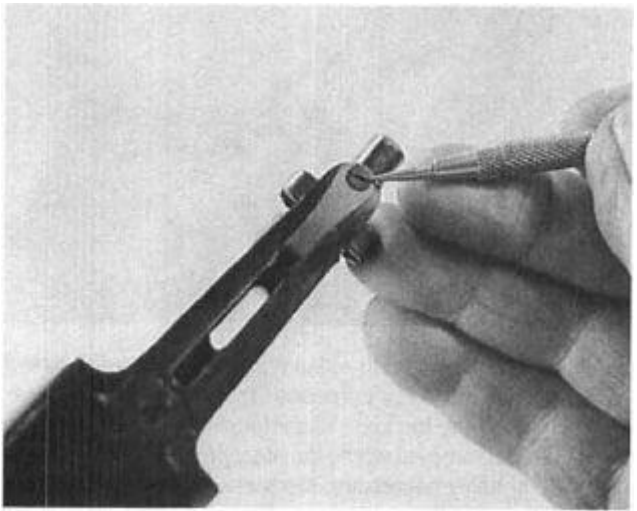




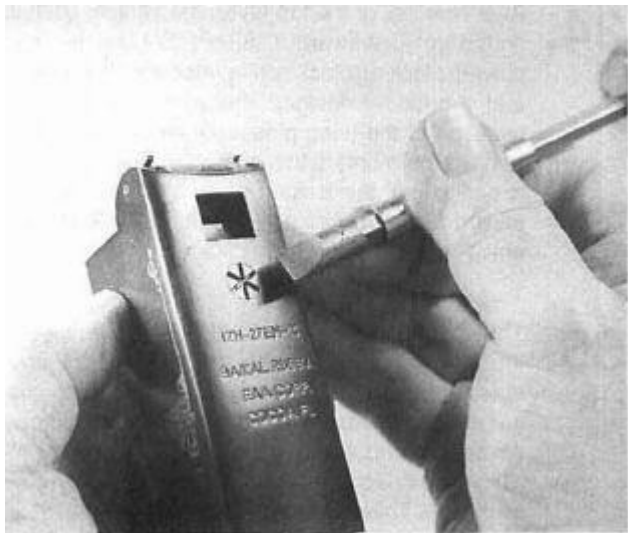


**28.** The inertia block at the rear of the receiver is pivoted and retained by a cross pin. Caution: A small torsion type wire spring at its center will be released, so control it. Remove this system only for

repair.



**29.** The trigger rebound spring is retained at the rear by a small screw. Remove it only for repair.

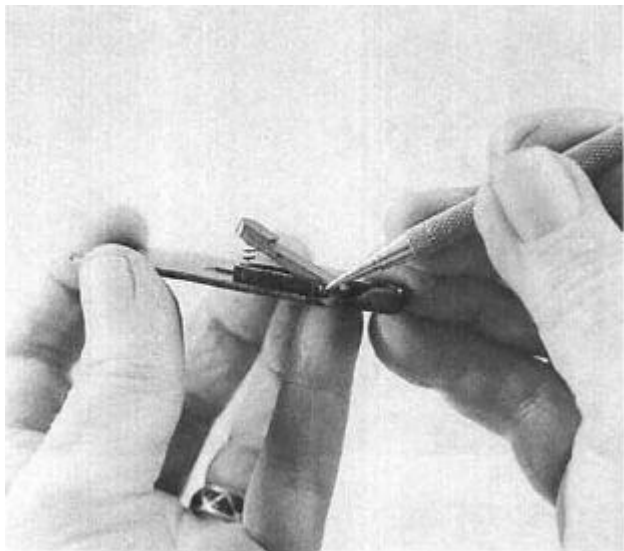


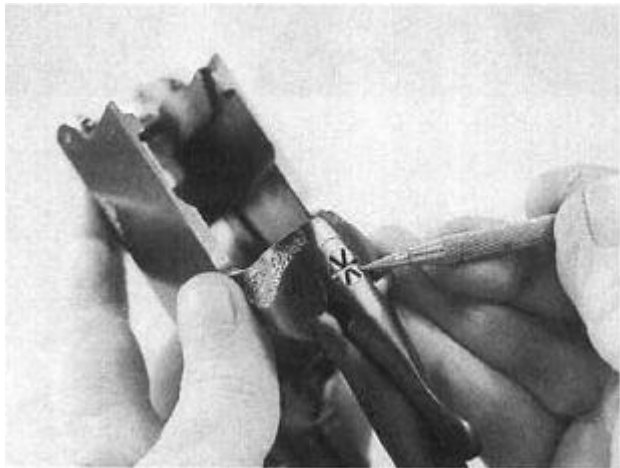
- 30.** Use a properly fitted screwdriver to avoid marring, and remove the large screw on the underside of the receiver.

**31.** Use a non-marring tool on the inside front edge of the bottom plate to tip it outward for removal.



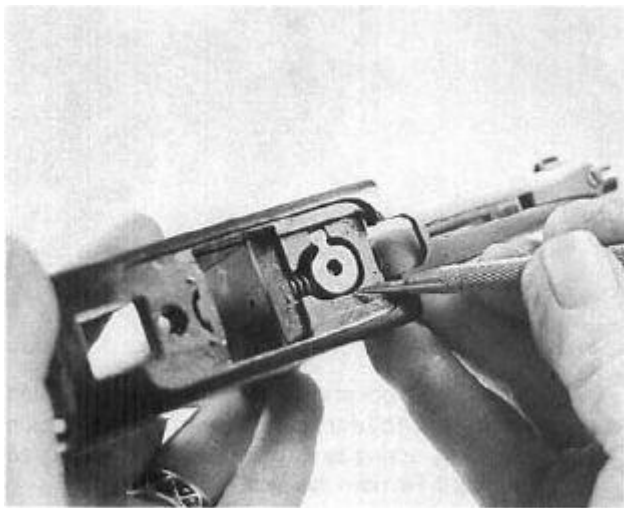
**32.** The barrel latch detent and its coil spring are retained in the bottom plate by a cross pin. Control the spring during removal.





**33.** The barrel latch system should be disassembled only for repair purposes. The large screw that retains the top lever is contoured and finished-over, and removal would inevitably mar the finish. If

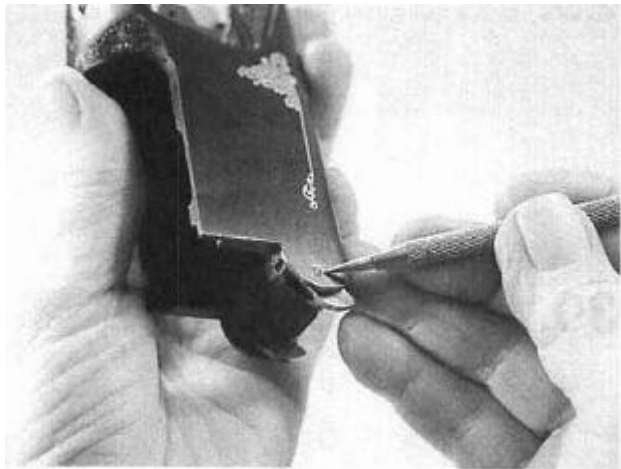
absolutely necessary, the screw is removed and the lever is taken off upward.



**34.** After removal of the top lever, the vertical shaft is drifted out



downward. Caution: Control the very powerful locking block spring. Also note that in several over/under designs, the shaft is relieved for passage of the firing pins, so it would be wise to remove them before this operation. After the shaft is drifted out, the locking block can be taken out toward the rear. Again, in normal takedown, this entire system is best left in place.

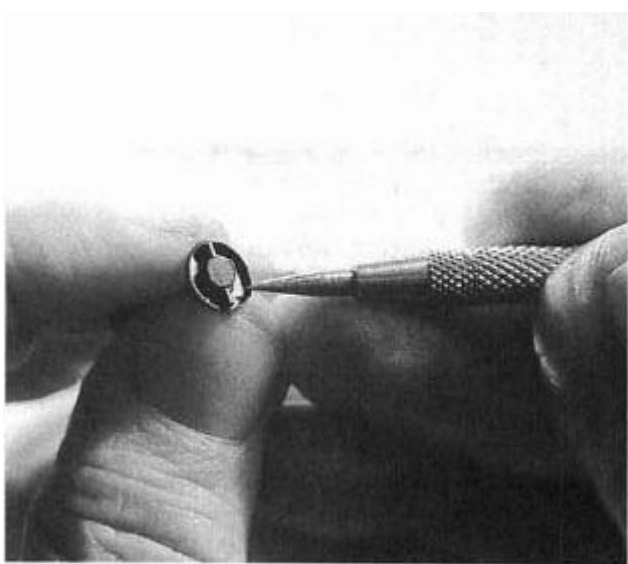


**35.** The cocking rod levers are pivoted and retained at the front of the receiver by pins that are semi-riveted in place. If they have to be removed, the pins are drifted outward. The sear-trip plungers for the

ejectors are retained by the main barrel pivot pin, which is pinned at its center and finished-over on each side. This system is not routinely removable.

# Reassembly Tips:

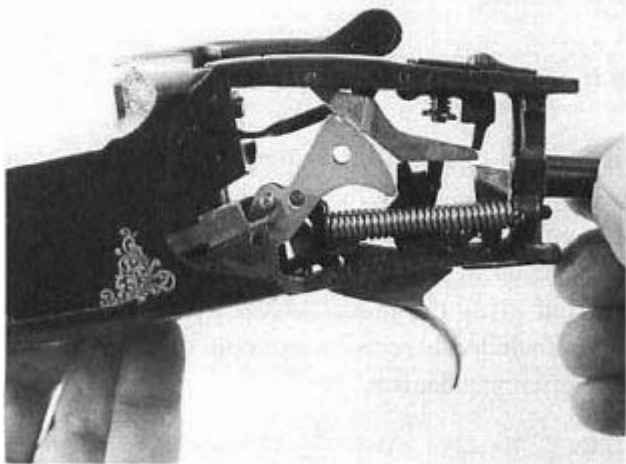
1. The safety system retainer is shown here outside the gun and without the spring, for illustration purposes. Note that the flanged rim of the washer retains the small cross pin.



2. When installing the hammer spring units, be sure the concave tip of the upper arm of the guide is aligned with the cross pin in the hammer. To

cock the hammer, insert a drift in the hole near the top and lever it rear-ward. Leave the hammers cocked, for reassembly of the barrel unit and the forend





3.





4.

As a reassembly aid, here are views of both sides of the receiver, with all

parts in their proper places.

# ESSEX



<b>Data:</b>	Essex Single Shot
<b>Origin:</b>	United States
<b>Manufacturer:</b>	Crescent Fire Arms Norwich, Connecticut
<b>Gauges:</b>	12 (others probably offered)
<b>Overall length:</b>	45-1/2 inches
<b>Barrel length:</b>	30 inches
<b>Weight:</b>	7 pounds 15 ounces

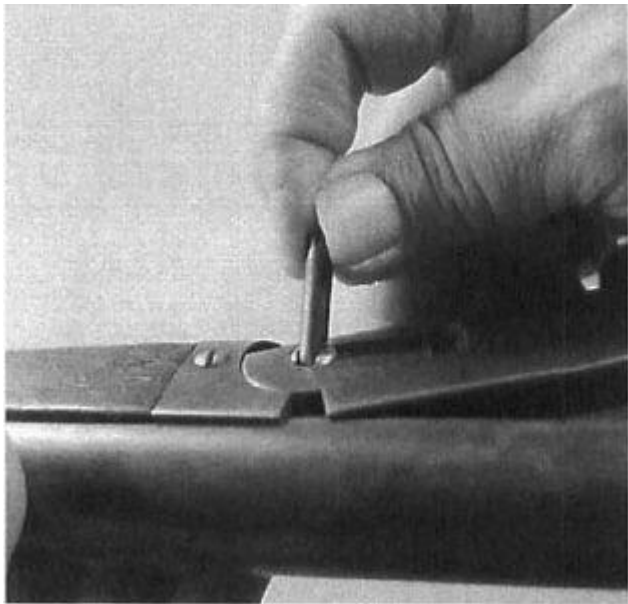
Although this gun is marked "Essex Arms Company," no such firm actually

existed. It was one of the many "house brands" used by the H. & D. Folsom Co., a large New York wholesaler of earlier times. One authority attributes this name to the Belknap Hardware Company of Louisville, Kentucky, and gives the maker as Crescent of Norwich, Connecticut. The gun is included here as an example of a single-shot with a very different internal mechanism.

## **Disassembly:**

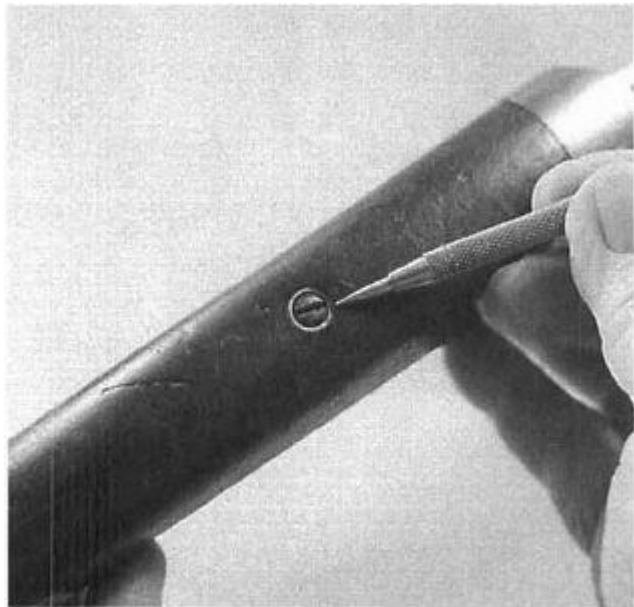
1. Operate the barrel latch, and tip the barrel to opened position. Lift the handle of the barrel

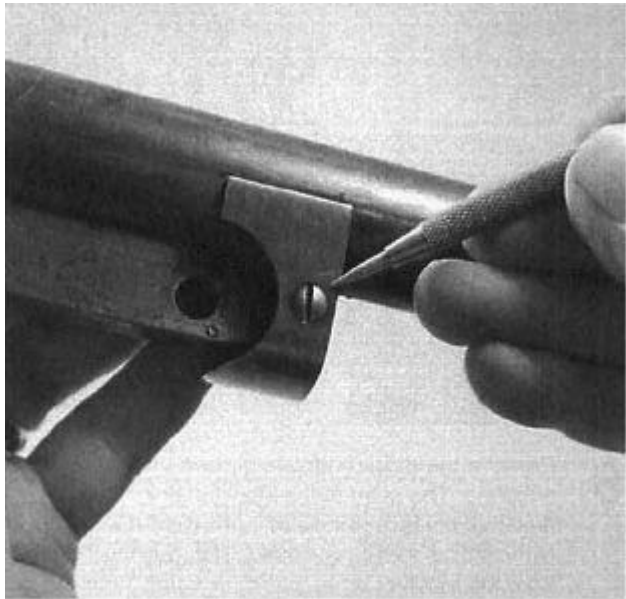
pivot pin out of its recess, and use it to unscrew the pin (counter-clock-wise) for removal. Separate the barrel unit from the receiver.



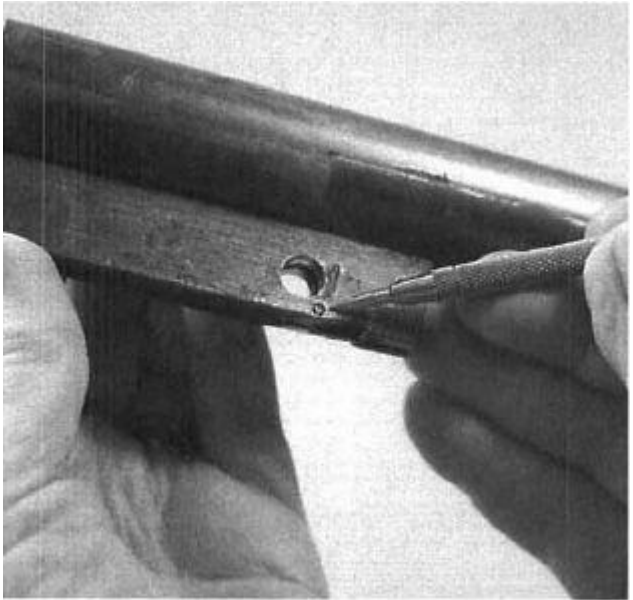
2. Removal of this screw will allow the forend to be taken off the barrel.





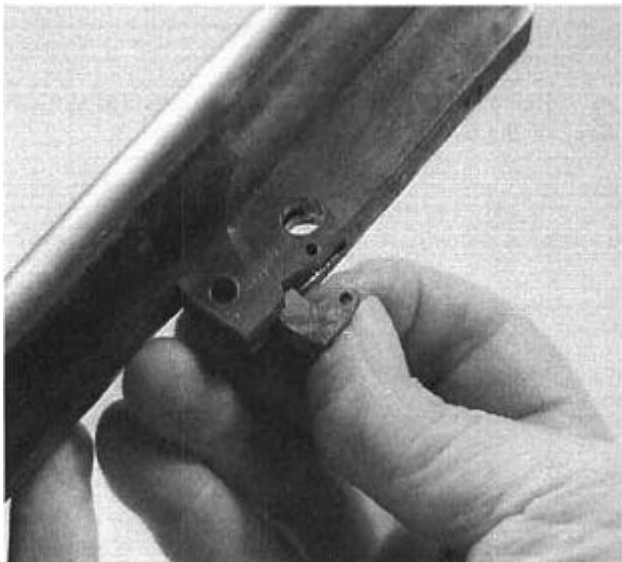


3. Taking out this cross-screw will allow the forend base to be removed from the barrel.

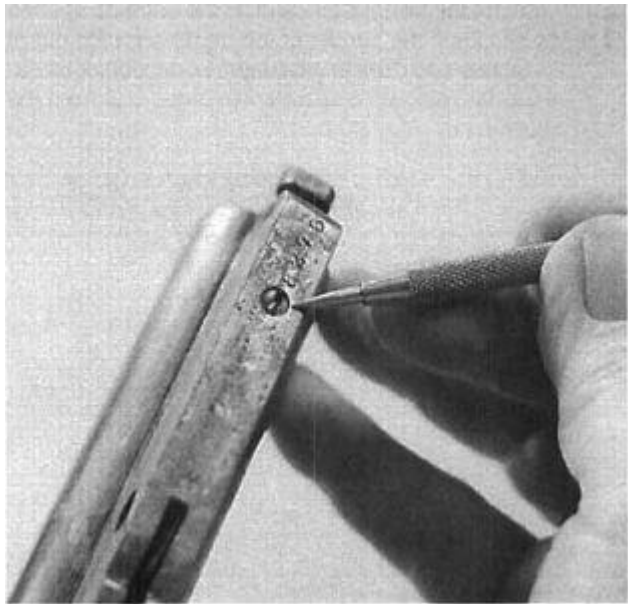


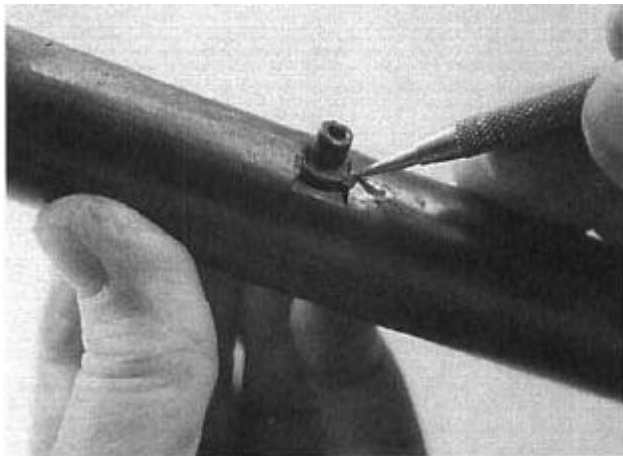
4. Drift out the cross pin in the forward lower edge of the barrel under lug.

5. Remove the ejector lever downward. Because of long-time impact on the underside of the underlug, the lever may be tight. If so, use pliers to work it out.

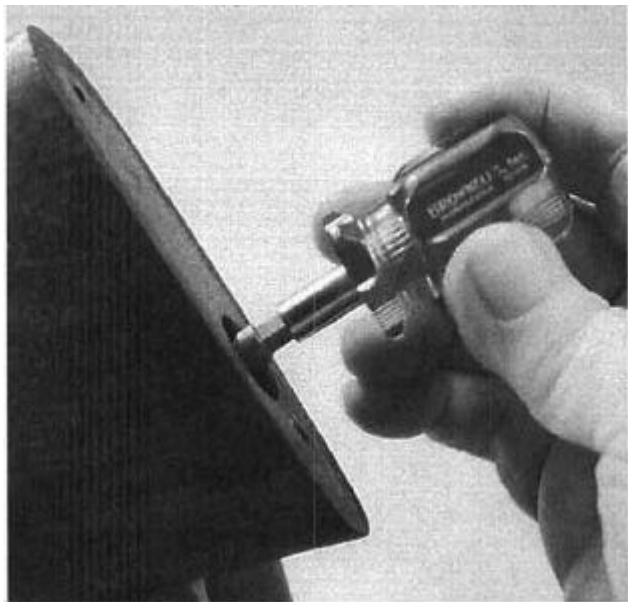


6. Backing out this screw will allow the ejector to be taken out toward the rear.





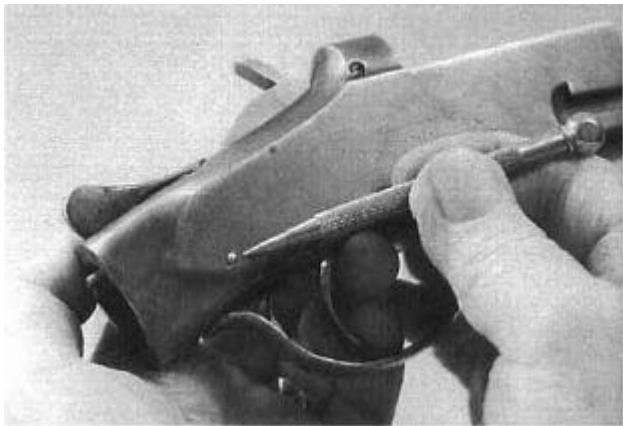
7. The post for the forend retaining screw is dovetail- mounted on the barrel, and is staked in place. If removal is not necessary for repair or refinishing, it is best left in place.



8. Remove the stock buttplate screws and take off the buttplate. The head of the



stock retaining bolt is very near the rear face of the stock, and a short screwdriver of the proper size can be used. Separate the buttstock from the receiver.



**9.** Drift out the rear sub-frame

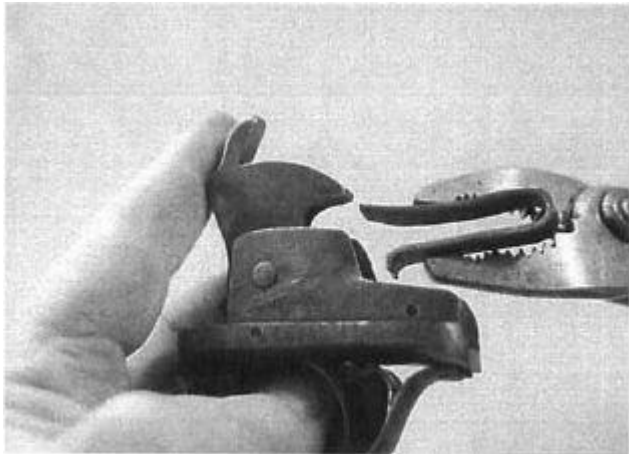
cross pin.

- 10.** Drift out the front sub-frame cross pin. Note that the ends of this pin are finished-over and contoured, so use a bronze drift to avoid marring the ends.

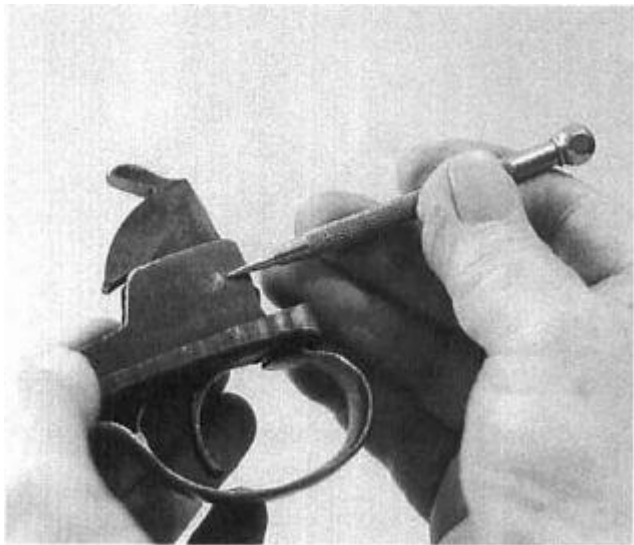


**11.** Remove the sub-frame unit downward.

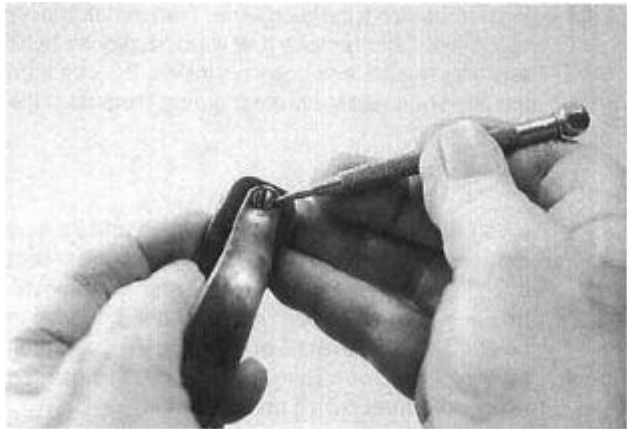




**12.** Grip the mainspring with pliers, compress it slightly, and remove it toward the rear.



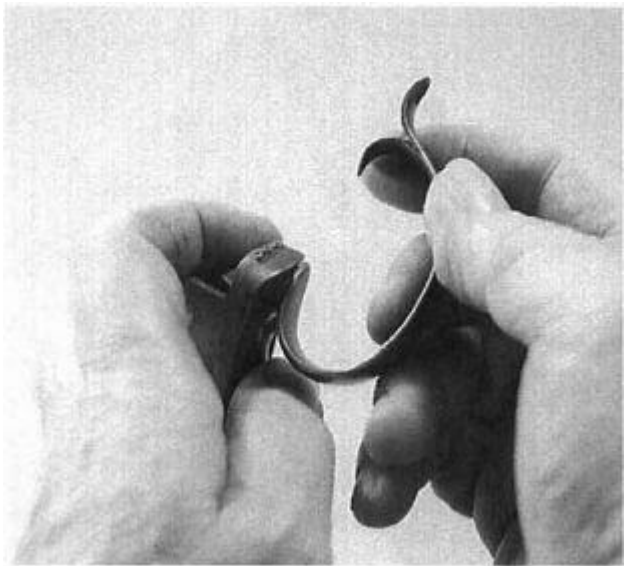
**13.** Drifting out the hammer and trigger crosspins will allow removal of both parts upward.



**14.** Remove the screw at the rear of the trigger guard.

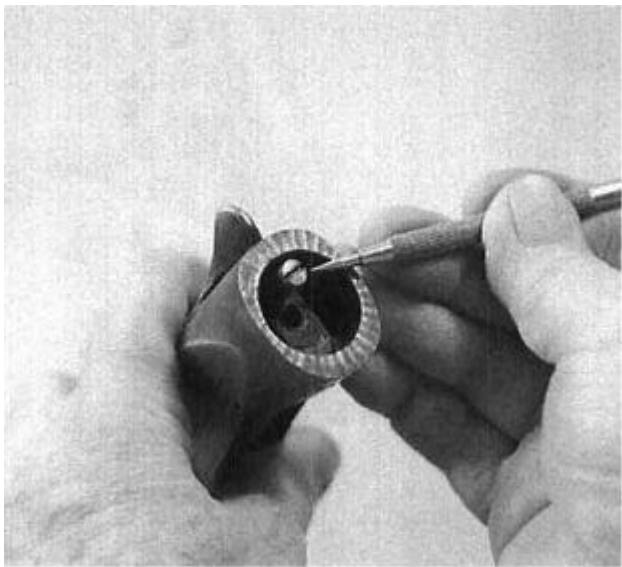
**15.** Unscrew the guard from the sub-frame (counter-clockwise). It may be tight,

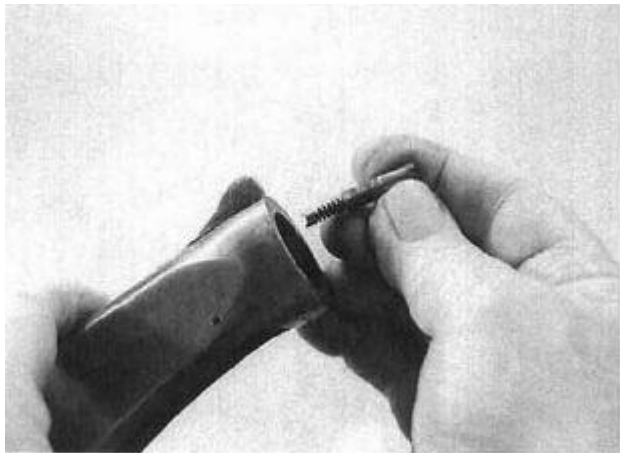
and may require that the sub-frame be held in a padded vise, so the guard can be tapped with a nylon mallet to start it.



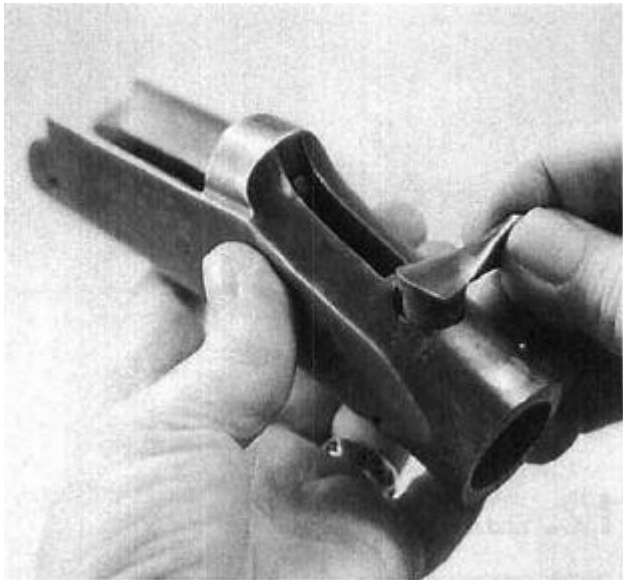


**16.** Unscrew the slotted spring housing at the rear of the receiver.



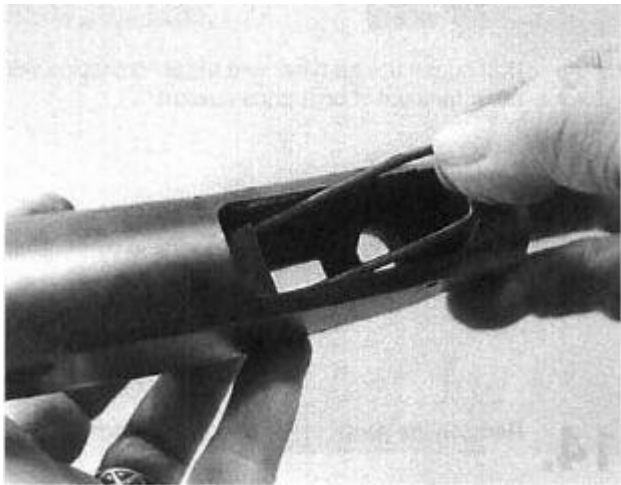


- 17.** Remove the housing tube, spring, and plunger toward the rear.



**18.** Move the barrel latch rearward to clear its connecting harness from the latch lever. Turn the latch

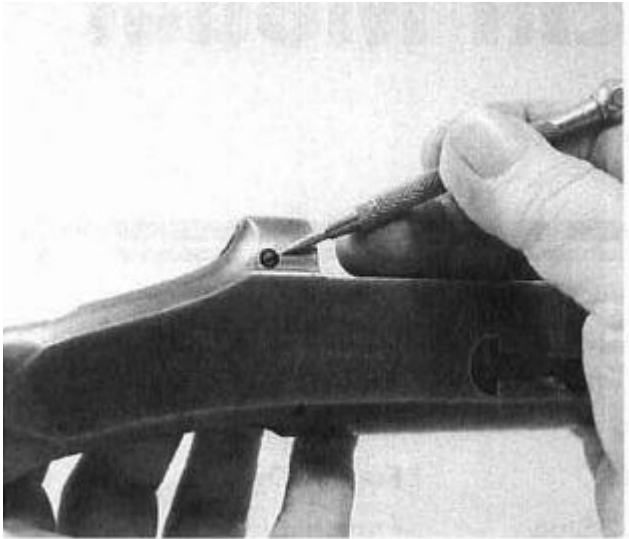
lever to the side, and remove it upward. It may be tight, and may require a nudge from inside. If so, be sure the latch harness stays clear during removal of the lever.



**19.** If you are very lucky, the barrel latch and its long harness-rod can be moved straight to the rear until it stops, and then be lifted at the rear for removal. In many cases, like this one, the latch will have to be tilted, and an exact exit point found. It can then be gently pried out. Take care that the harness-rod is not deformed during this operation.

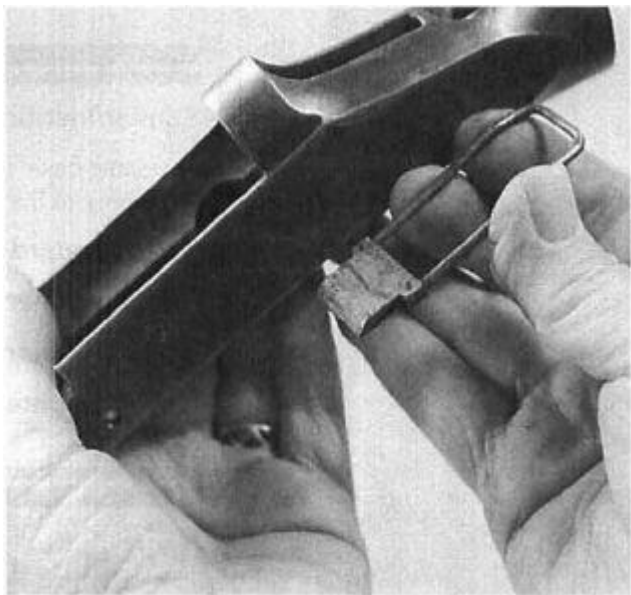
**20.** Removal of this screw will allow the firing pin and its

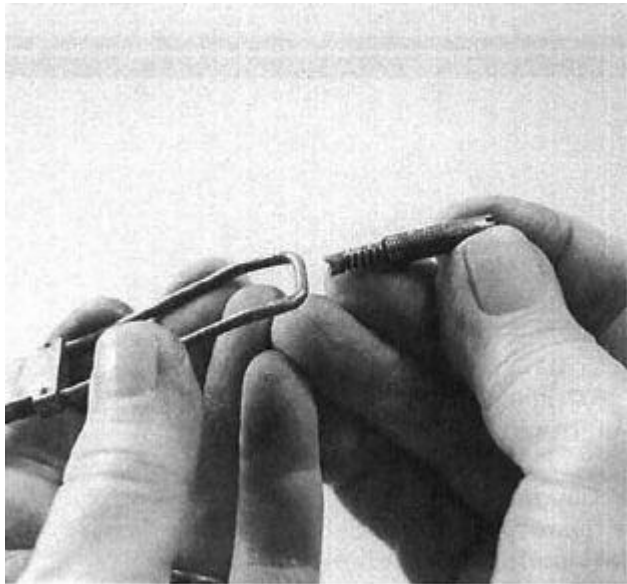
return spring to be taken out  
toward the rear.



**Reassembly Tips:**

1. If the barrel latch has been removed, be sure it is reinstalled in the orientation shown.





2. When installing the barrel latch spring assembly, be sure the concave tip of the plunger engages the crossbar of the



latch harness-rod.



- 3.** To install the mainspring, set the hammer in its rebound/safety-step position, and keep forward pressure on the trigger to hold it there. Put the

upper arm of the spring under the compression lobe of the hammer, and insert a screwdriver to push the downturned tip of the lower spring arm forward until it is aligned with its recess in the trigger. Also, keep forward pressure on the rear of the spring. A third hand would be helpful. You might want to hold the sub-frame in a padded vise for this operation.

When installing the rear sub-frame cross pin, cock the hammer to clear the

mainspring from the path of the pin.

Do not over-tighten the cross screw that retains the forend's base.

# Franchi Model

**48AL**



## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Franchi Model 48AL also apply to the following guns:

**Colt Standard Auto**

**Franchi Dynamic 12**

**Franchi Dynamic 12 Slug**

**Franchi Hunter**

**Colt Custom Auto**

**Franchi Dynamic 12 Skeet**

**Franchi Eldorado**

**Data:**

Franchi Model

<b>Origin:</b>	48AL Italy
<b>Manufacturer:</b>	Luigi Franchi, S.p.A. Brescia
<b>Gauges:</b>	12, 20
<b>Magazine capacity:</b>	5 rounds
<b>Overall length:</b>	43 inches (with 24-inch barrel)
<b>Barrel length:</b>	24, 26, 28 & 30 inches
<b>Weight:</b>	5.2 to 7-1/2 pounds

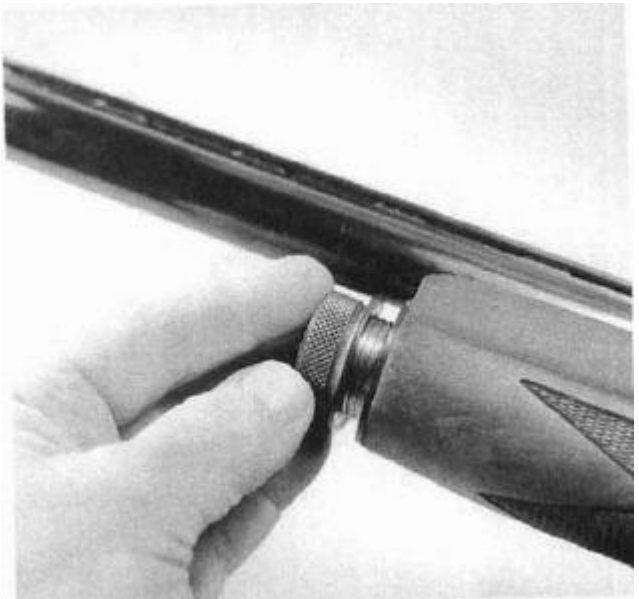
The original Franchi autoloader has been imported into the U.S. since around 1950. It has been called the Model

48AL, and also simply the Standard Model. Very early guns will have a few small mechanical differences, but nothing that would cause difficulty in takedown. These instructions, however, do not apply to the current gas-operated Franchi guns.



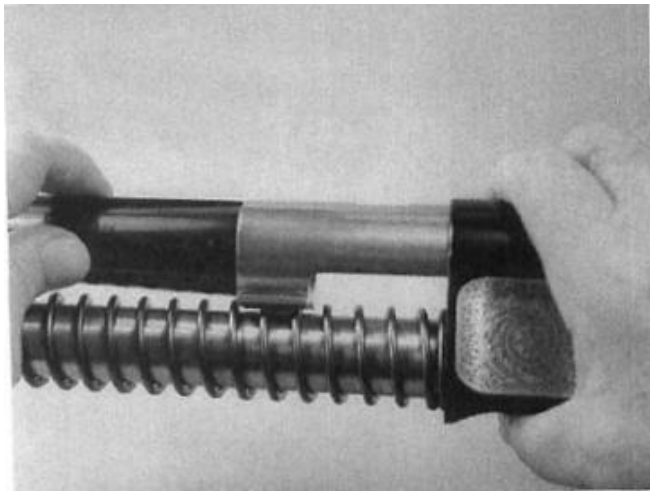
# Disassembly:

1. Lock the action open, and set the safety in on-safe position. Push the barrel slightly rearward, and unscrew and remove the magazine end cap.



2. Ease the barrel and forward.  
Remove the forend toward the  
front.





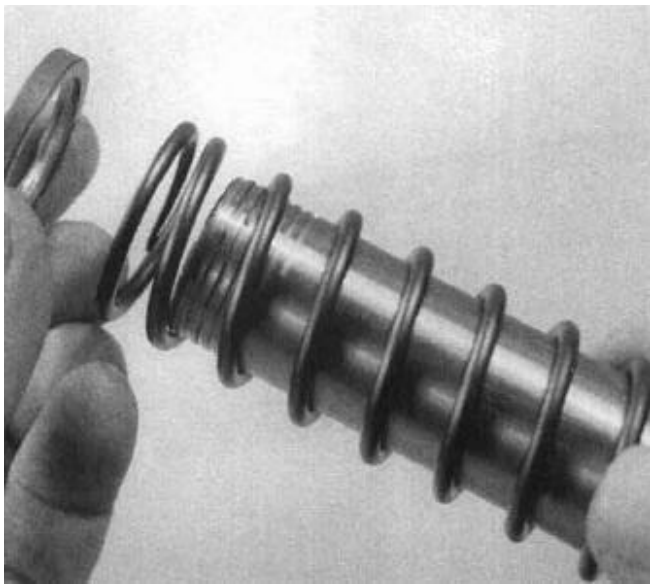
**3.** Remove the barrel toward the front.



**4.** Remove the friction piece from the magazine tube.

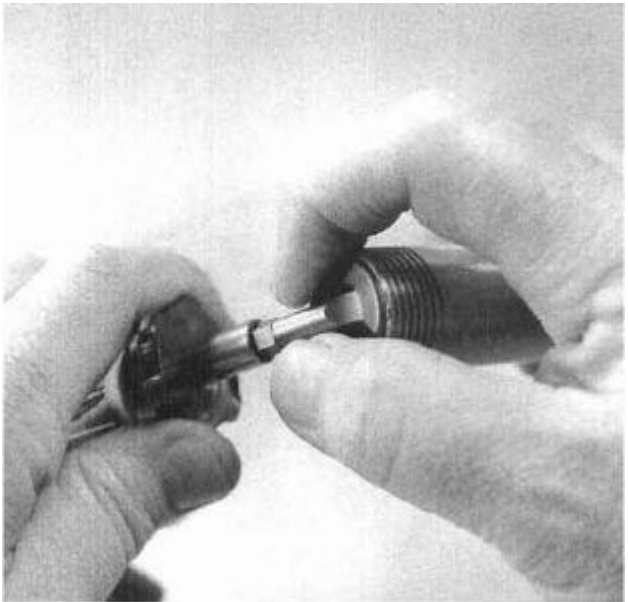
**5.** Remove the compression ring

and the recoil spring.



6. If the magazine spring and follower need to be removed, gently pry out the circular

keeper at the end of the magazine tube. **Caution:** *Control the spring and ease it out.*





7. Restrain the bolt, depress the carrier latch button, and ease the bolt to forward position. Push out the two trigger group



retaining pins.

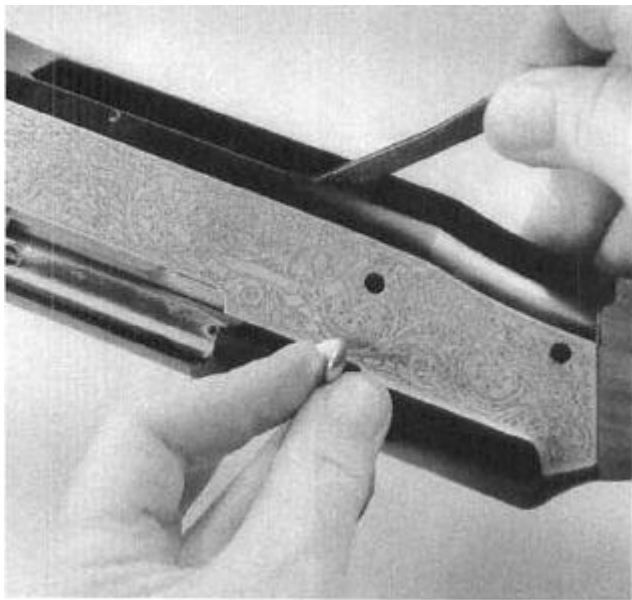


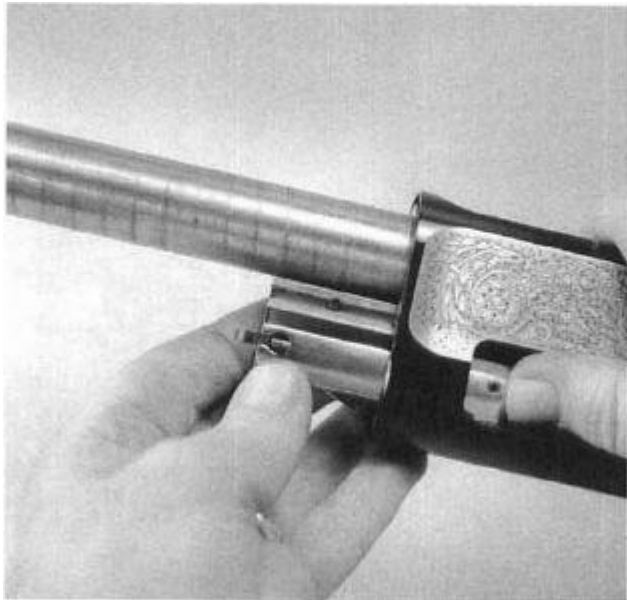
**8.** Remove the trigger group downward.

9. Insert a tool to depress the bolt spring plunger rear-ward, and swing the bolt spring strut outward.

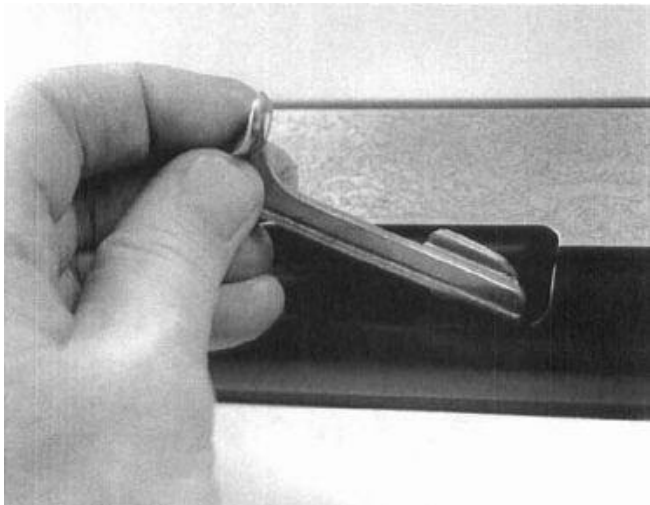


**10.** Move the bolt handle to the rear, freeing it from the bolt.





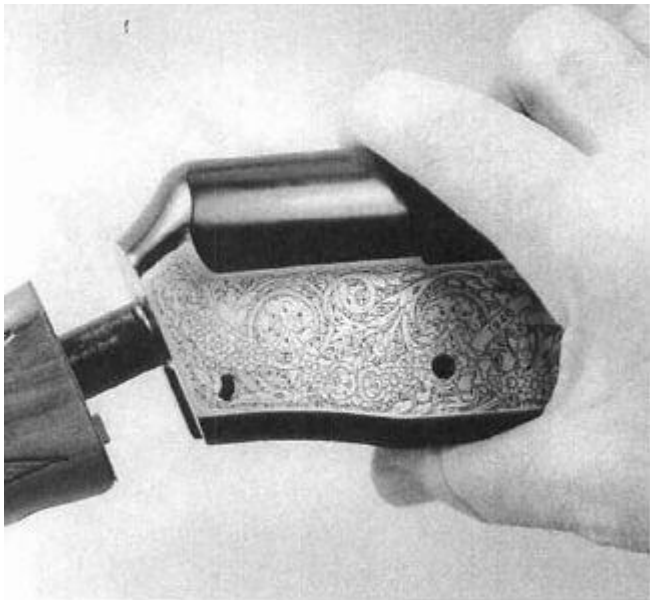
**11.** Remove the bolt assembly toward the front.



12. Remove the bolt handle through the ejection port.

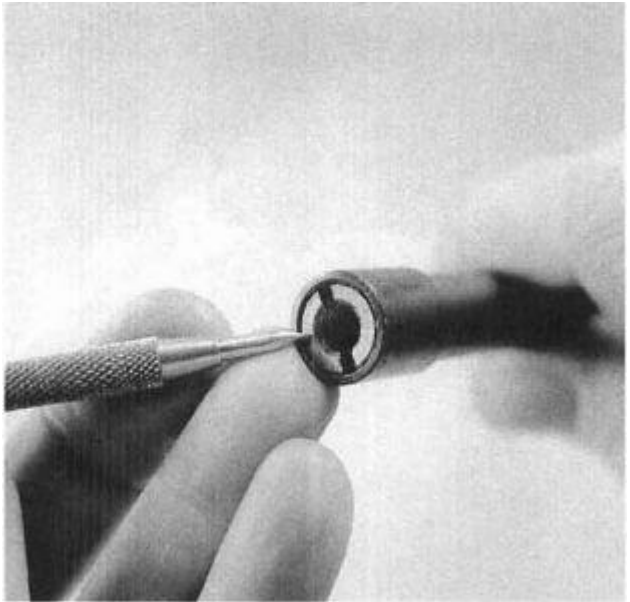
**13.** Remove the buttplate screws and take off the buttplate. Use

a large screwdriver to take out the stock mounting bolt. Beneath the bolt head are a lock washer and a bearing plate. Remove the buttstock toward the rear.

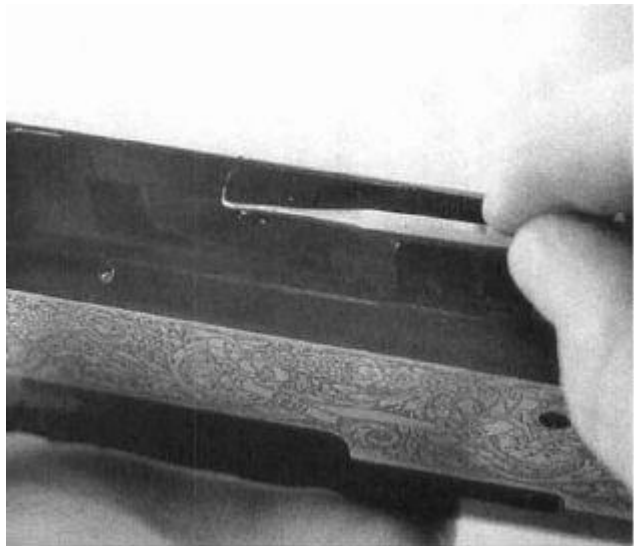


**14.** The bolt spring and its plunger can be removed by unscrewing this threaded plug at the rear of the spring

housing. Caution: Control the powerful spring, and ease it out.

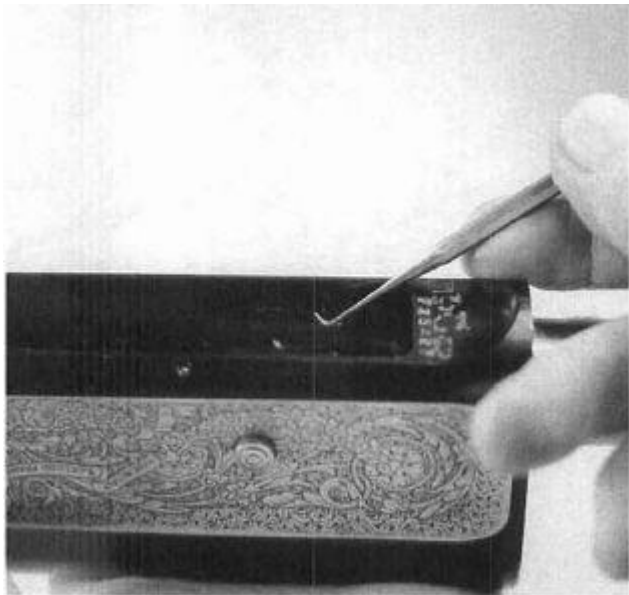






- 15.** The carrier latch and its button and spring are pivoted and retained by a vertical pin in the left side of the receiver. The pin is retained by a tiny

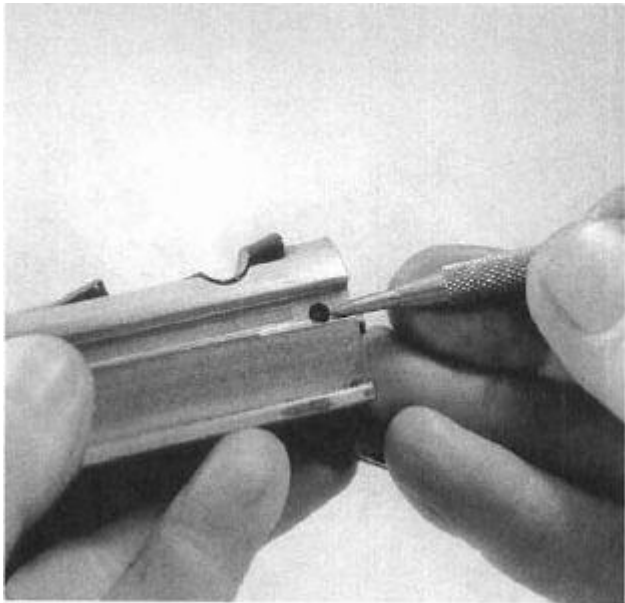
spring clip in a slot, just inside the lower edge of the receiver. Removal of the clip will require a small L-shaped tool like the one shown, and the clip is taken out rearward. The pin is then pushed out upward to free the parts. Unless repair is necessary, this system is best left in place.



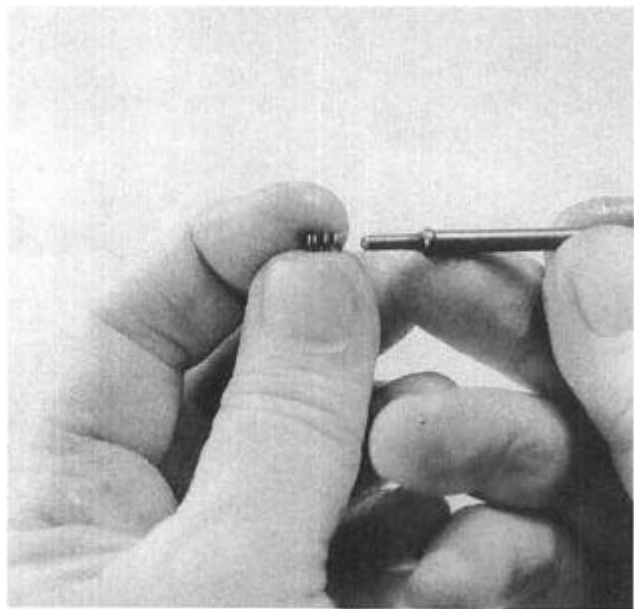
**16.** On the right side of the receiver, the shell stop and its spring have much the same arrangement, and the same

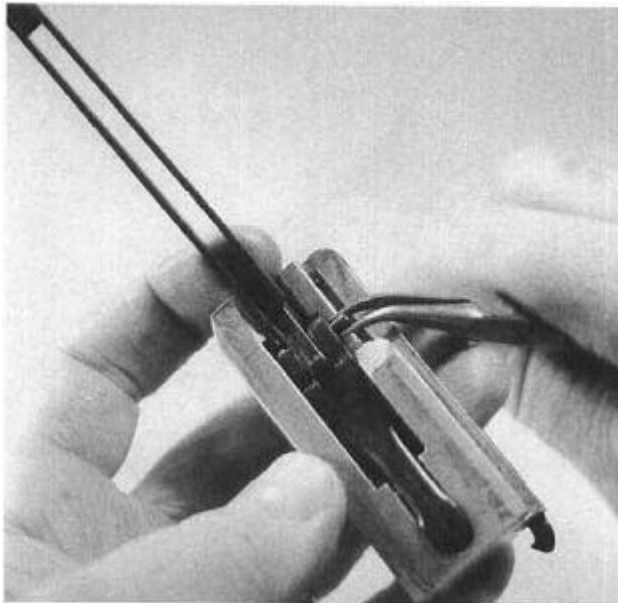
instructions and advice apply.

- 17.** The firing pin and its return spring are retained by a roll-type cross pin at the rear of the bolt.



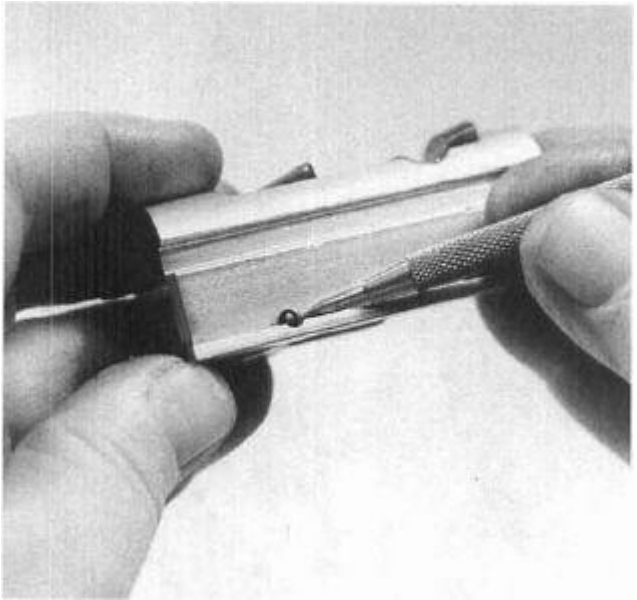
**18.** Note that the firing pin return spring is very short and quite small. Take care that it is not lost.





**19.** The pivot of the bolt spring strut can be moved out by tapping the bolt with a nylon hammer. It is then removed,

and the strut is taken off  
rearward.

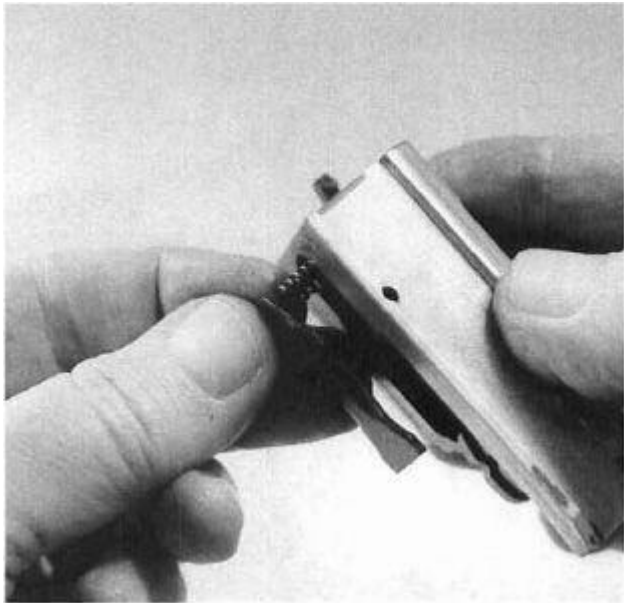


**20.** The locking block lever is

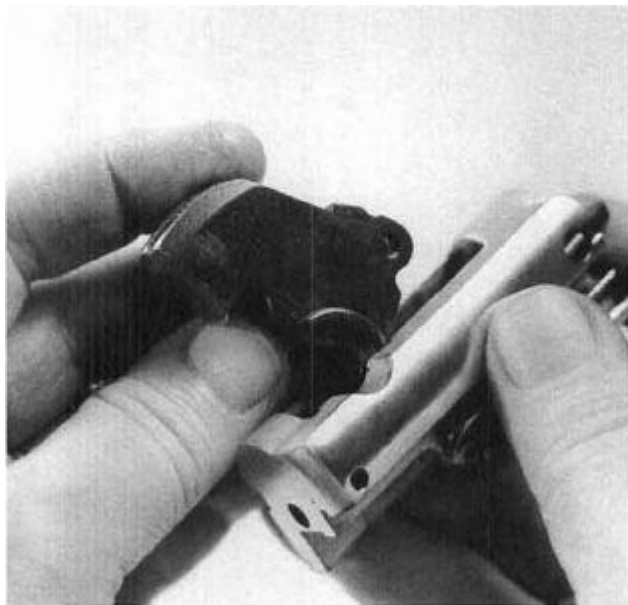


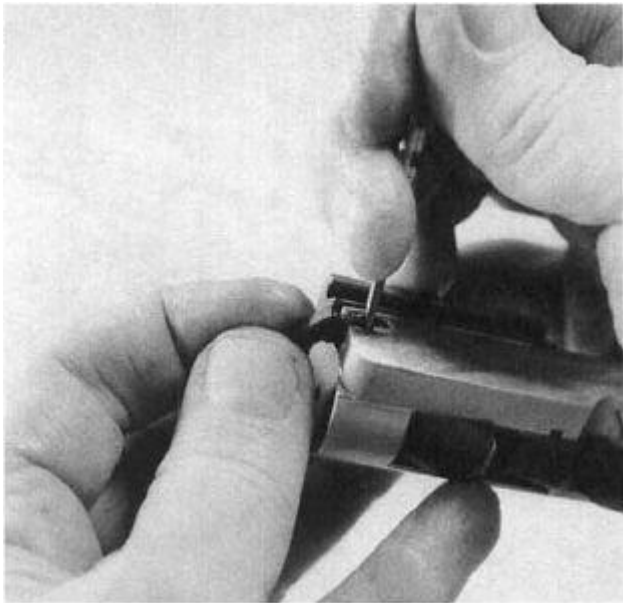
retained by a cross pin that is drifted out toward the right. As the pin is removed, control the strong lever spring, and ease it out.

- 21.** Remove the locking block lever and its spring.



**22.** Turn the locking block upward until its guide rib on the right side clears its track, and remove it.





**23.** Insert a tool between the extractor and its plunger. Push the plunger toward the rear, and tip the extractor out

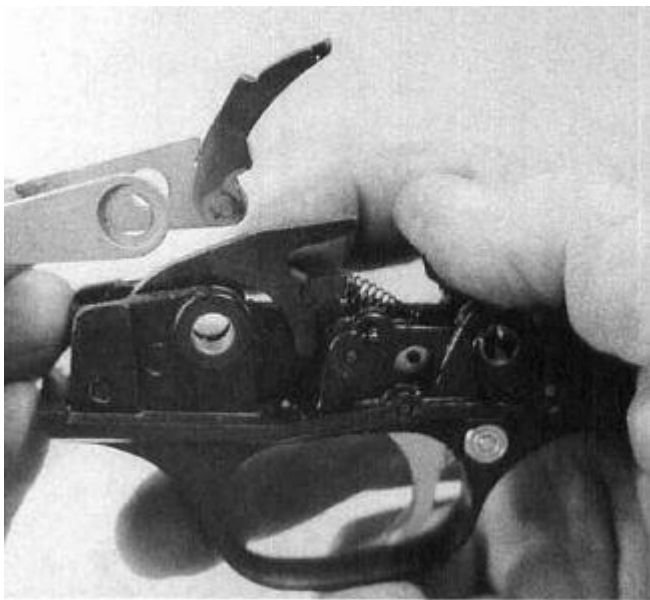
toward the front. Caution:  
Control the plunger and  
spring.



**24.** Restrain the carrier plunger and spring on the right side, and push out and remove the front cross pin sleeve, which is also the carrier pivot. Note that on very early Franchi guns, the carrier spring system is almost exactly the same as the one used on the SKB autoloader, covered elsewhere in this book.

**25.** Release the spring tension slowly, and remove the carrier upward. The carrier dog pivot is a riveted part, and it is not

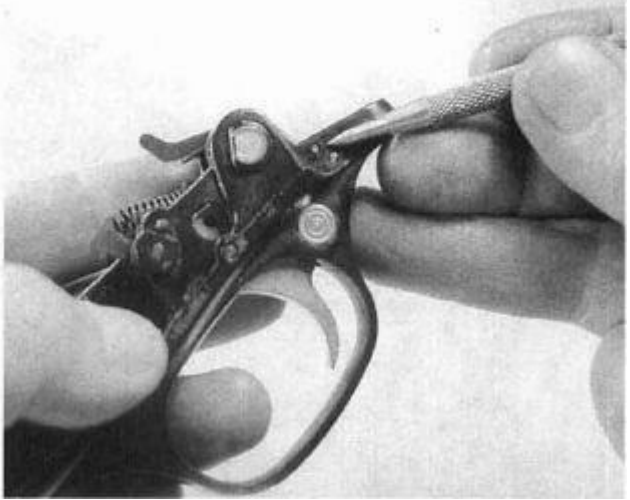
routinely removed.



**26.** Remove the carrier plunger and spring.

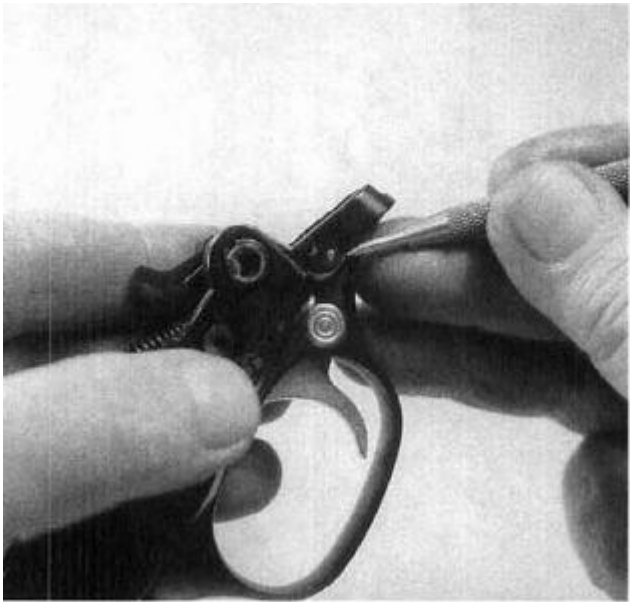




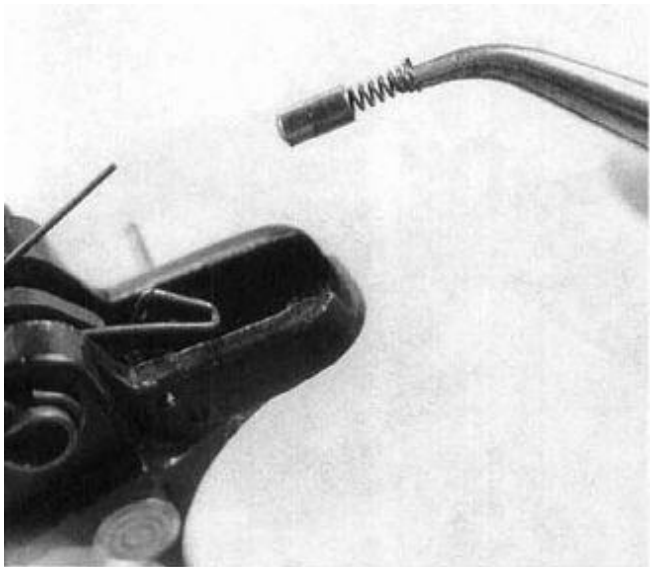


**27.** Move the safety to the off-safe position, and depress the auto safety lever forward. Restrain the hammer, pull the trigger,

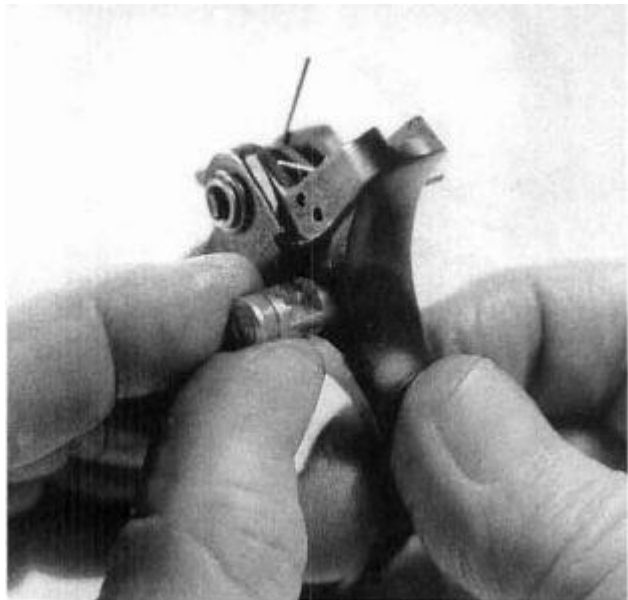
and ease the hammer down to the forward position. Push out the small upper pin at the rear of the trigger group.



- 28.** Restrain the lower arms of the auto safety spring, and the manual safety spring, and push out the small lower cross pin at the rear of the trigger group.
- 29.** Remove the safety plunger and spring toward the rear.

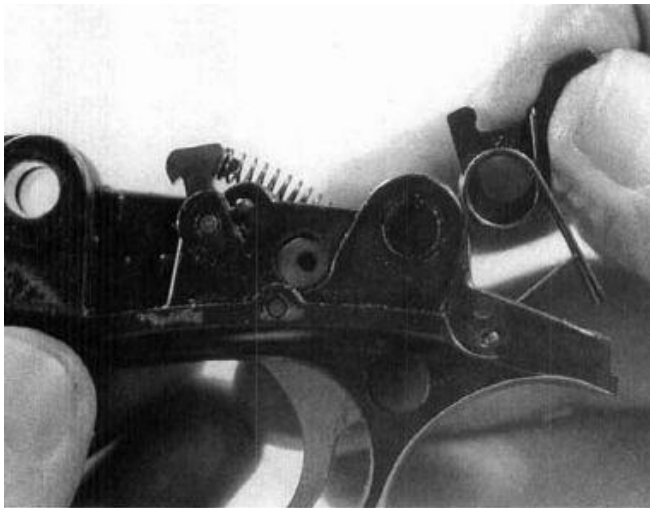


**30.** Remove the safety button toward either side.





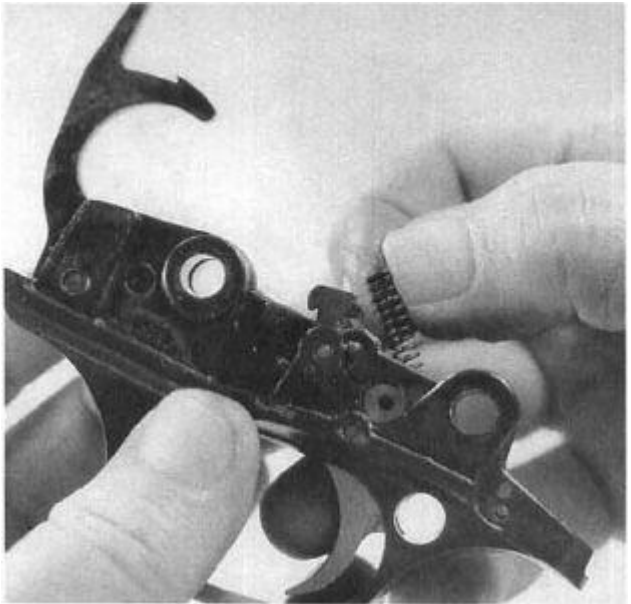
**31.** Remove the rear cross pin sleeve that is also the pivot for the auto safety and its spring.



**32.** Remove the auto safety and its spring upward and toward the rear.

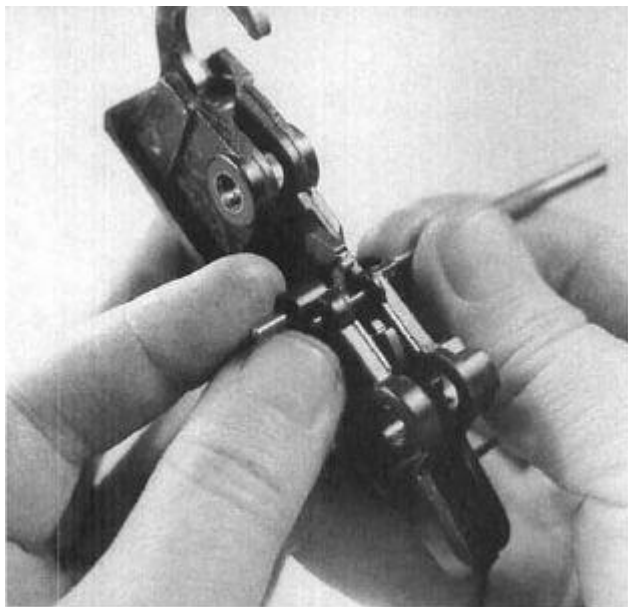
**33.** Unhook the combination sear

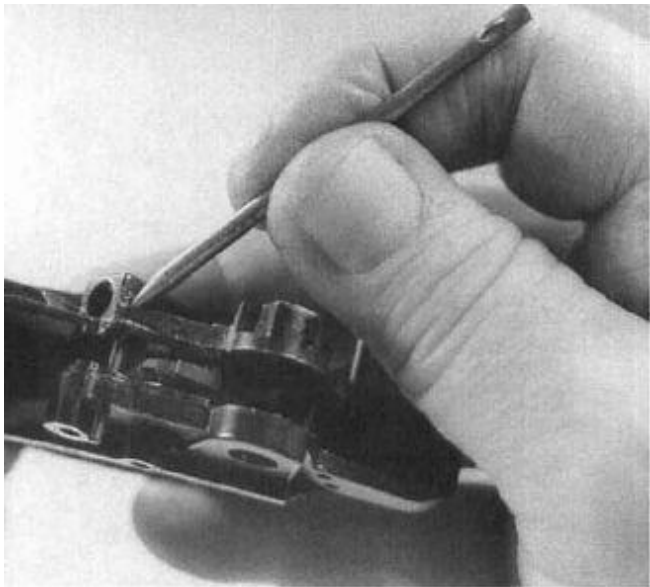
and trigger lever spring from its post on the sear, and remove it.



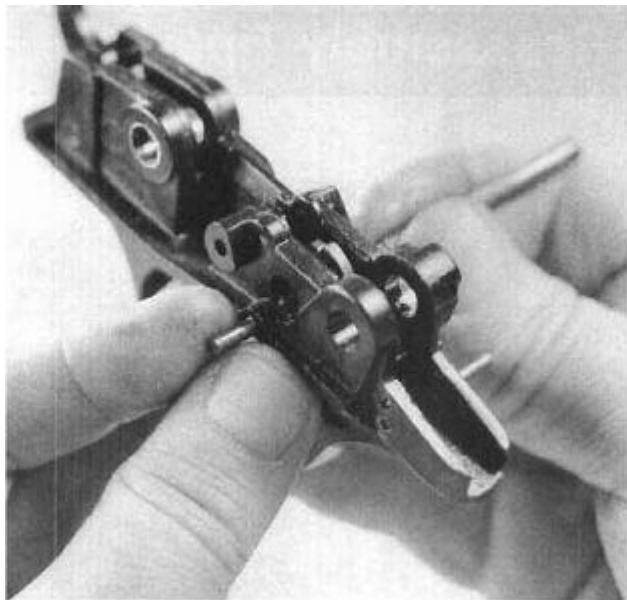


**34.** Push out the sear pin toward the left, and take out the sear upward.





**35.** Nudge the sear limit pin leftward until it can be grasped with pliers and taken out.



36. Push out the trigger pin toward the left.

**37.** The trigger can now be moved upward to the point shown, giving access to the lever cross pin. The cross pin can be pushed out toward the right, and the lever is taken off upward. The trigger can be removed only if the adjustment screw is taken out. This screw is set and sealed at the factory, and it should not be disturbed unless necessary for repair.

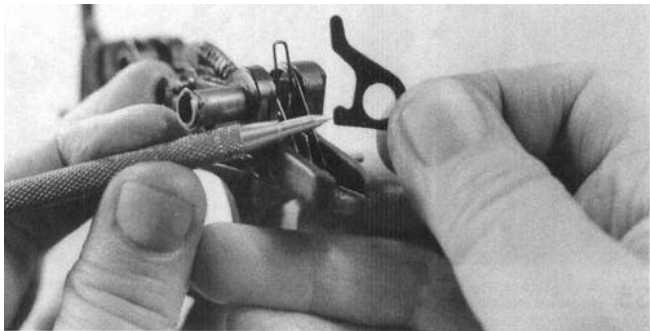


**38.** Restrain the hammer against the tension of its spring, and drift out the hammer pivot toward the left. Ease the

hammer, plunger, and spring  
out upward.



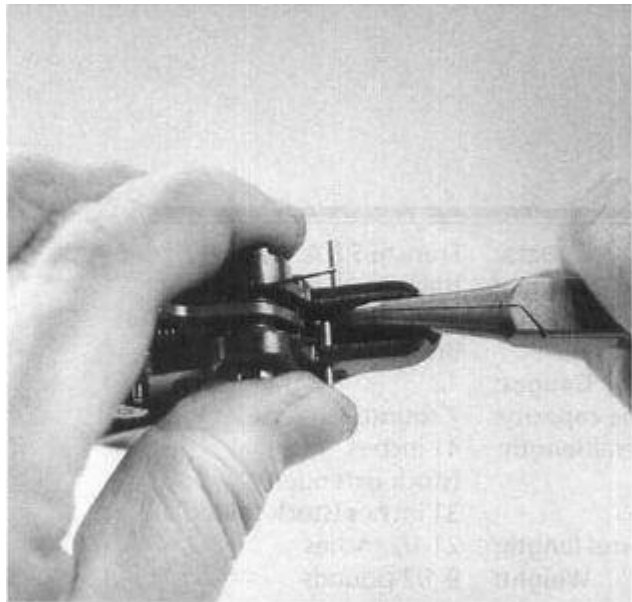
# Reassembly Tips:

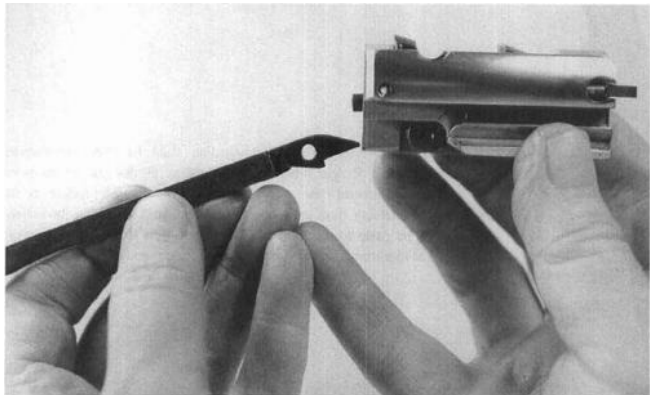


1. When the auto safety is reinstalled, be sure its lower front projection goes beneath the rear lower edge of the trigger lever.

**2.** When replacing the pins at the rear of the trigger group, use slim pliers to position the left arm of the auto safety spring. Its lower loop will hold the manual safety spring in place. Put the upper cross pin in first, from the left, moving the right arm of the spring behind the pin as it is pushed across. Depress the spring arms again as the lower pin is installed.







- 3.** When reattaching the bolt spring strut to the locking block, be sure it is installed in the orientation shown. When replacing the trigger group, it is necessary to slightly retract the bolt to insure that the auto safety is properly engaged.



# **Franchi S.P.A.S. 12**



**Data:** Franchi S.P.A.S.  
12

**Origin:** Italy

**Manufacturer:** Luigi Franchi,  
S.p.A. Brescia

**Gauges:** 12

**Magazine  
capacity:** 7 rounds

**Overall  
length:** 41 inches  
(stock extended)  
31 inches (stock  
folded)

**Barrel length:** 21 1/2 inches

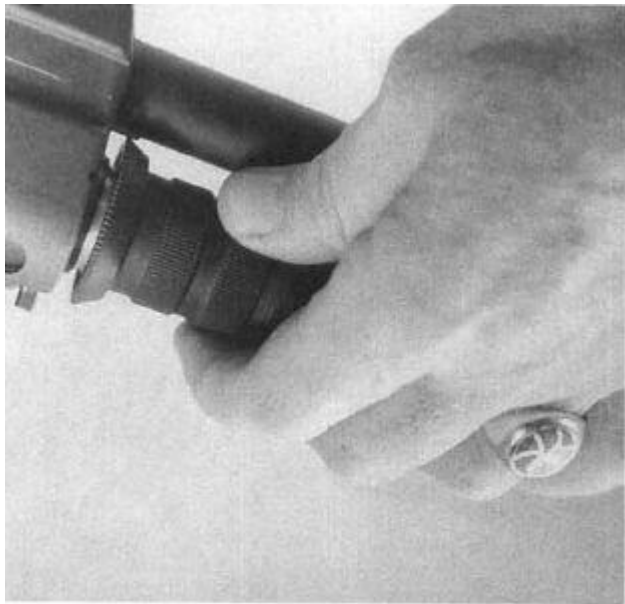
**Weight:** 9-1/2 pounds

The initials in the model designation stand for "Sporting Purpose Automatic Shotgun," but the configuration of this gun seems more oriented toward law enforcement use. One notable feature is its convertability from automatic to slide action. The original two-safety trigger group was changed, and the old units were recalled by the factory. The instructions here are for the currently-made version.

## **Disassembly:**

1. Set the system in semi-auto mode. Lock the bolt open, and set the safety in on-safe position. Unlatch the fore-grip and move it slightly back. Unscrew the knurled cap at the base of the magazine extension, and take off the extension. Caution: The magazine spring will be released. Control the spring, and take it out, along with the follower.



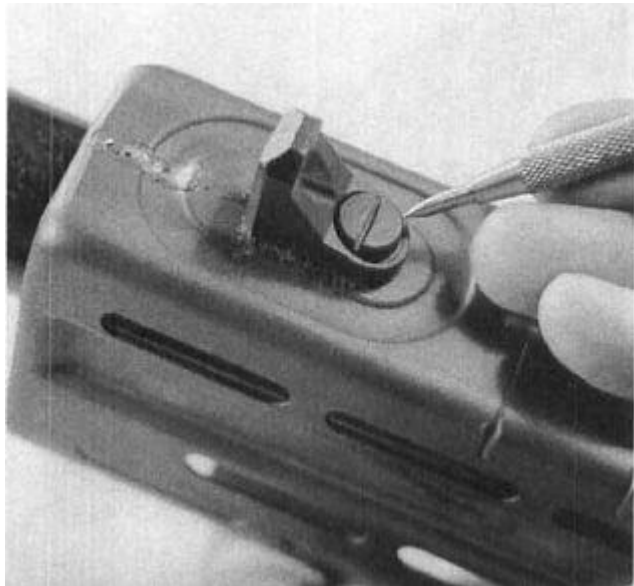


**2.** Remove the barrel assembly toward the front.



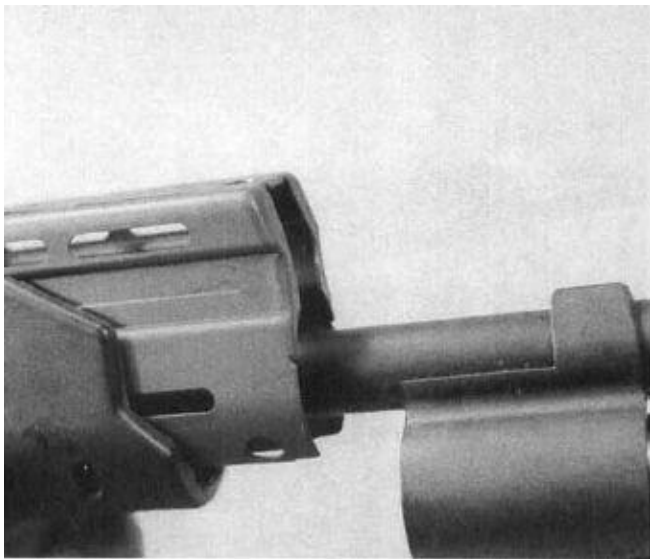


**3.** Remove the front handguard screw.

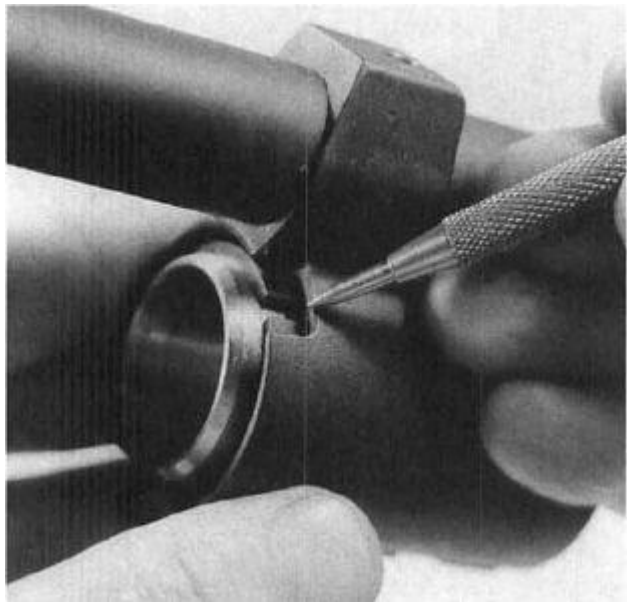


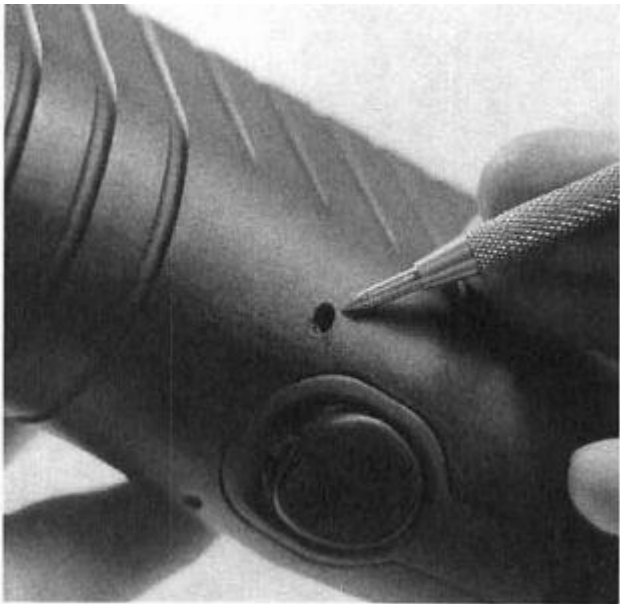
4. Remove the rear handguard screw, and take off the rear sight.

5. Move the fore-grip to a central position. Move the barrel forward, then downward, and take it out of the hand guard toward the front.



**6.** The sleeve valve can be taken out by spreading the operating lever ring out of its groove and taking the ring off toward the front. The valve can then be taken out rearward. In normal takedown, this system is best left in place.

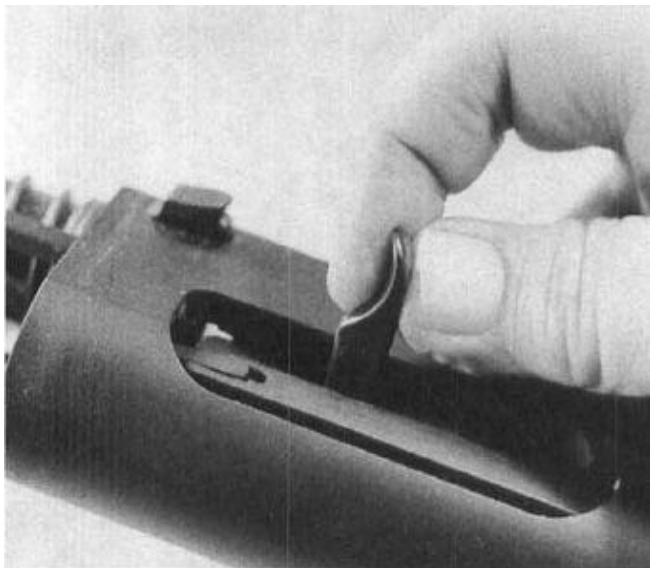




7. By depressing the latch lug on the inside, the fore-grip can be slid off the handguard toward the front. If the latch itself



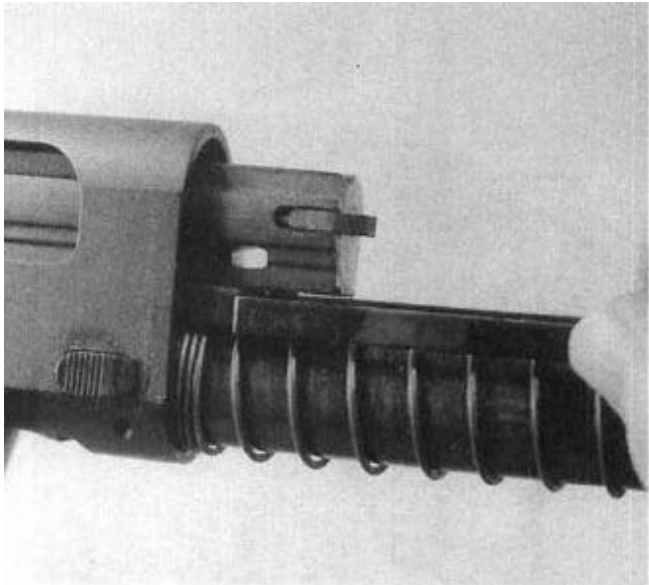
needs to be removed, it is retained by a cross pin.



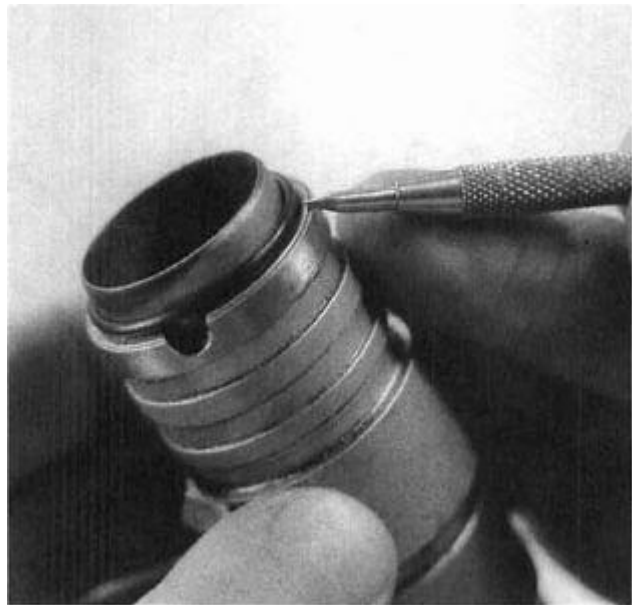
**8.** Restrain the bolt, trip the slide latch button, and ease the bolt

to the forward position. Align the cocking handle with the exit cut at the center of its slot in the bolt, and pull the handle out toward the right. Restrain the action slide assembly.

9. Ease the action slide assembly and bolt forward, and remove them toward the front. The slide bar is easily detached from the piston and the bolt. Remove the recoil spring toward the front.

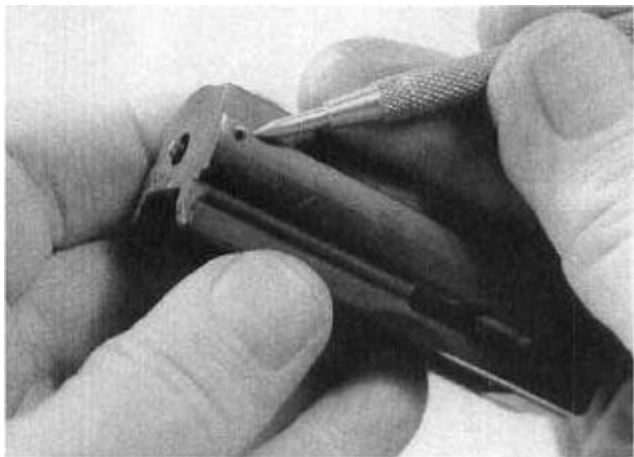


**10.** A rubber ring encircles the piston at the front. Take care that it isn't detached and lost.



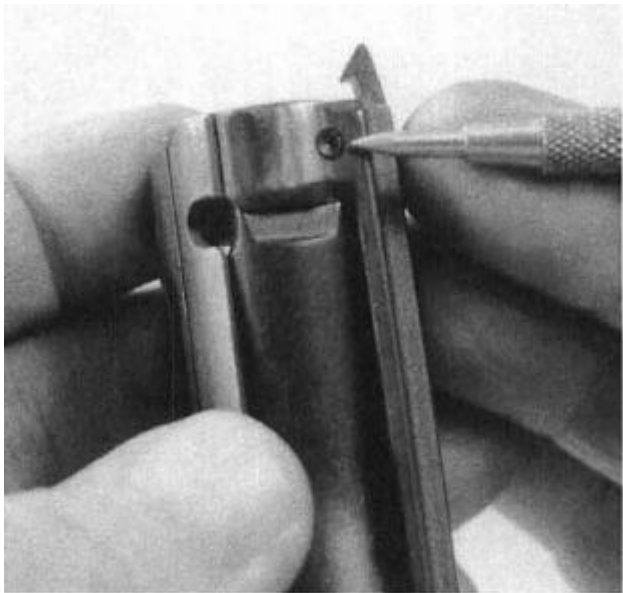


- 11.** Detach the action slide piece from the bottom of the bolt. If necessary, the cocking handle retaining spring is easily removed from its recess in the slide piece..



**12.** The firing pin and its return spring are retained by a cross pin that is drifted out toward the right. Removal of the firing pin will allow the locking block to be taken out upward.

**13.** The extractor and its plunger and spring are retained in the bolt by a vertical pin that is drifted out upward. Control the plunger and spring.



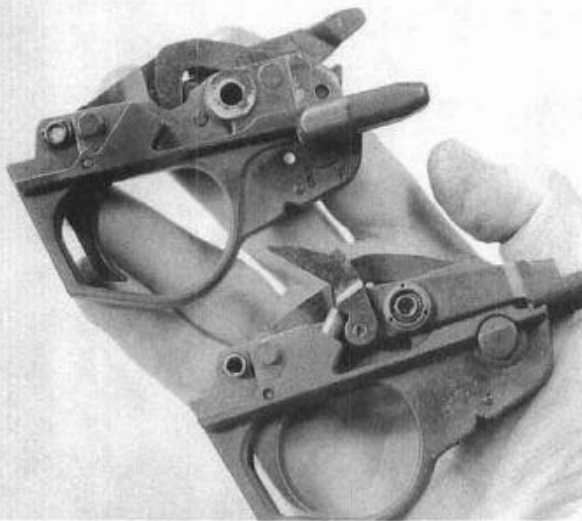
14. Push out the two trigger group retaining pins.





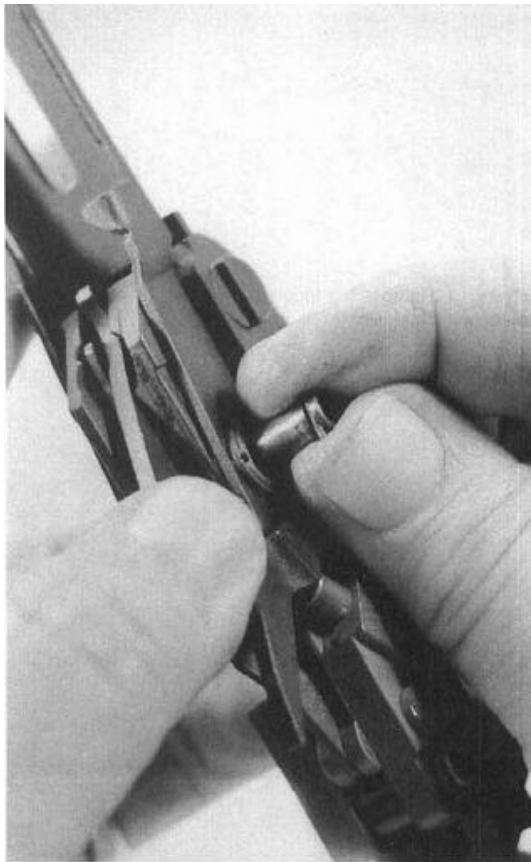


**15.** Remove the trigger group downward.



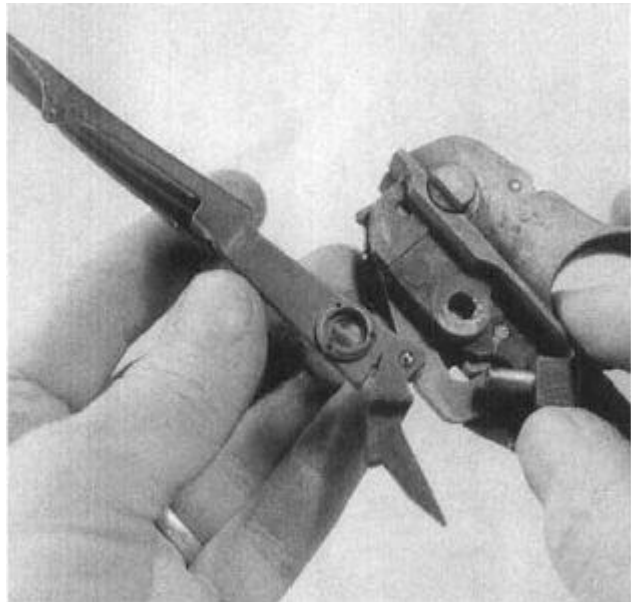
**16.** If you own a gun that has an original-style trigger group with two lever safety systems, like the one shown at top here, it should be sent to the

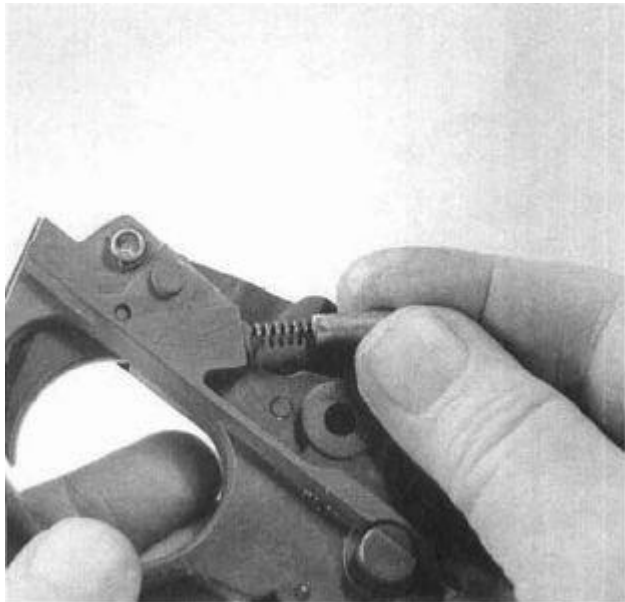
importer and exchanged for the current version shown below it.



**17.** Restrain the carrier plunger and spring, and push out the front cross pin sleeve, which is also the carrier pivot, toward the right.

**18.** Remove the carrier. The carrier dog pivot is riveted in place, and it is not routinely removed.

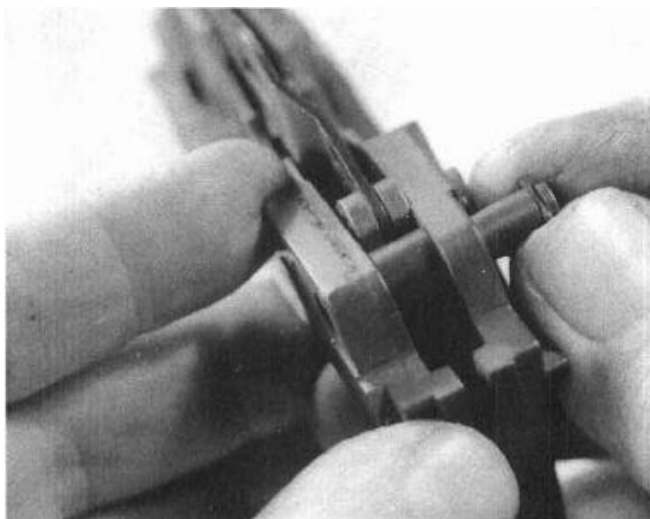




**19.** Remove the carrier plunger and springs. Note that there are two concentric springs, and take care that the smaller



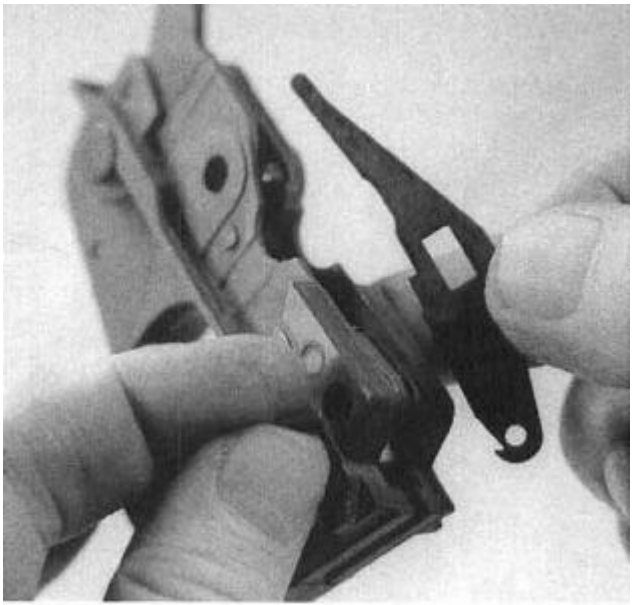
one isn't lost.



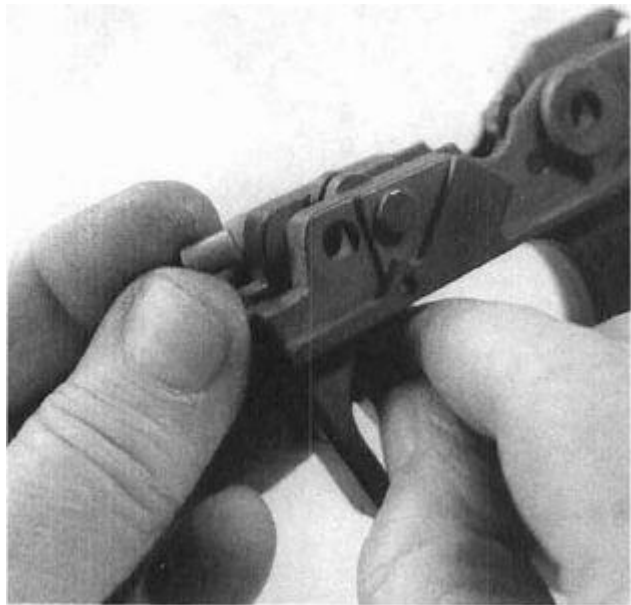
**20.** Move the safety to the off-safe position, restrain the hammer, pull the trigger, and ease the hammer down to the forward

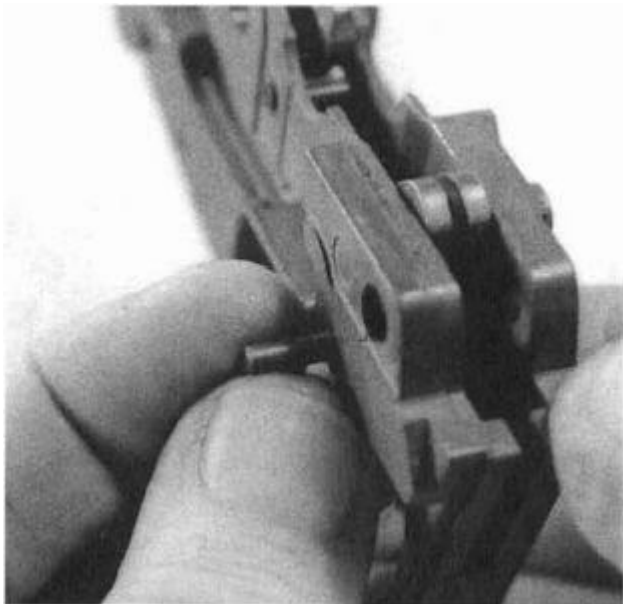
position. Push out the rear cross pin sleeve toward the right, and remove the bushing that it retains.

- 21.** Removal of the cross pin sleeve and bushing will allow the trigger to move beyond its normal position. Through the side access holes, push out the trigger bar pin and remove the trigger bar.

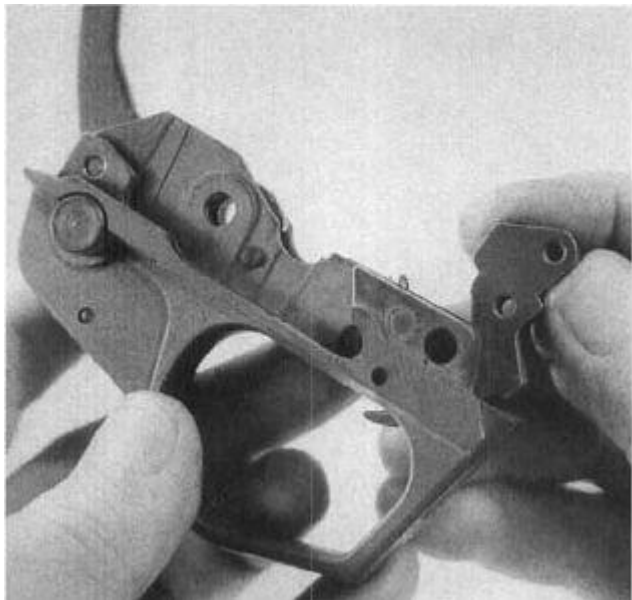


**22.** Remove the trigger bar plunger toward the rear.





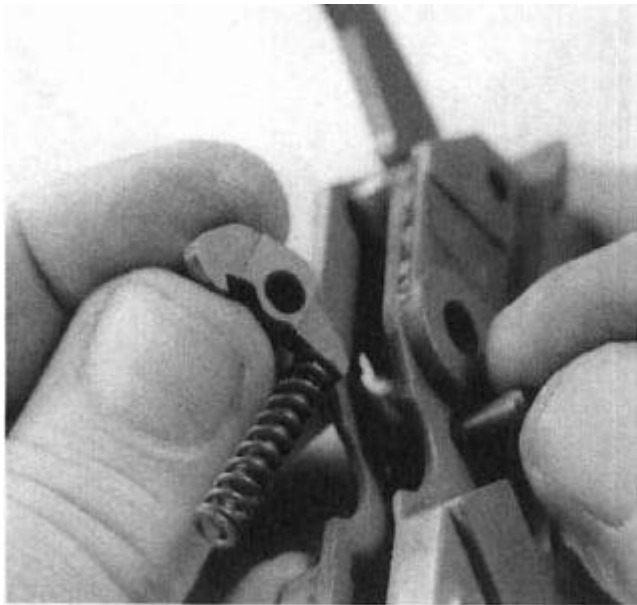
**23.** Push out the trigger cross pin.



**24.** Remove the trigger upward.

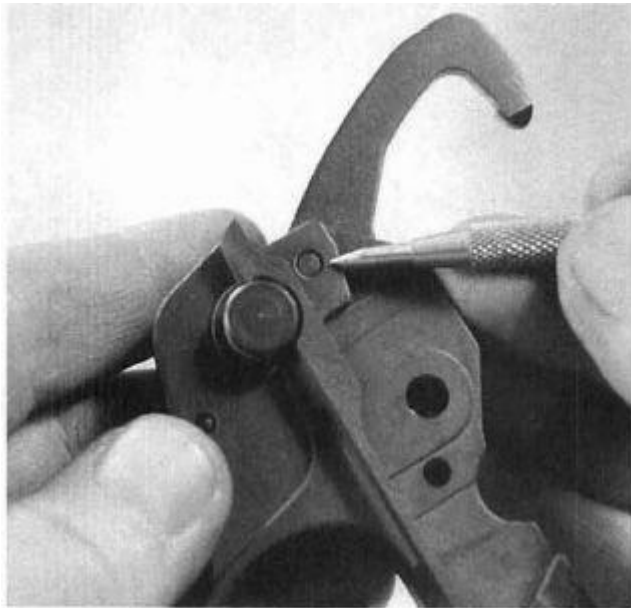
**25.** Drift out the sear cross pin

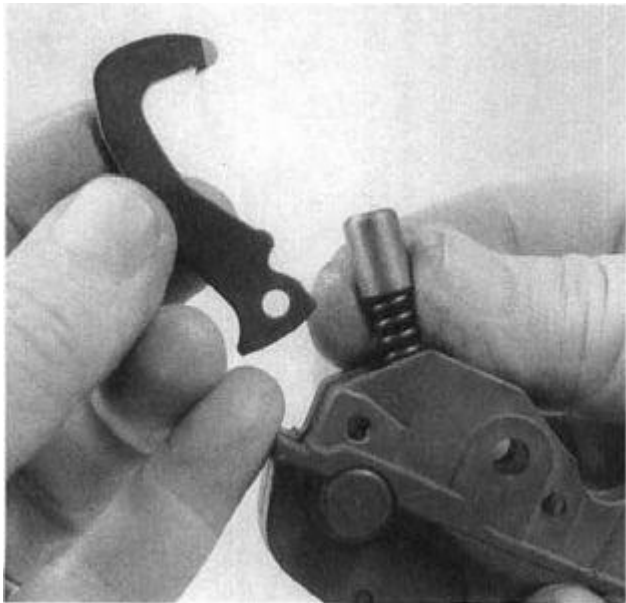
toward the right, and remove the sear upward, along with its attached spring. Note that there is a guide pin inside the spring.



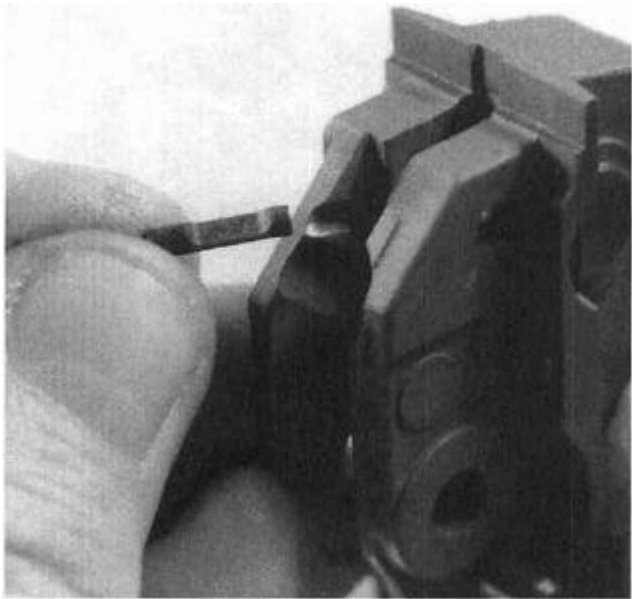
**26.** Restrain the hammer, and drift out the hammer pivot toward the left.







**27.** Remove the hammer, and its spring and plunger.

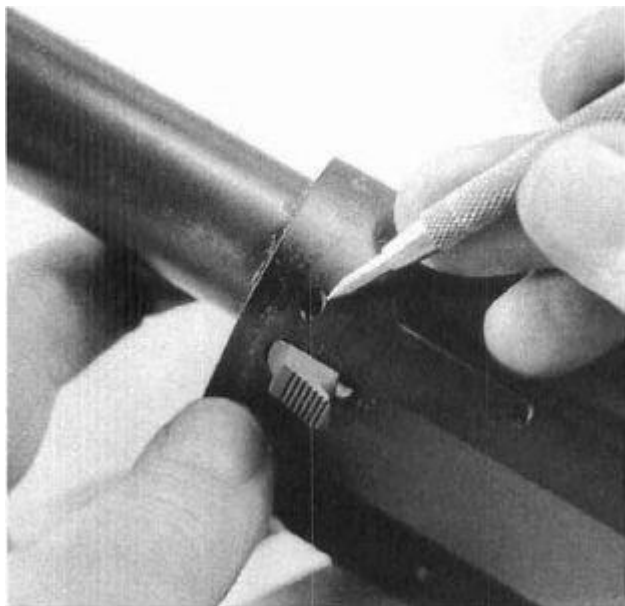


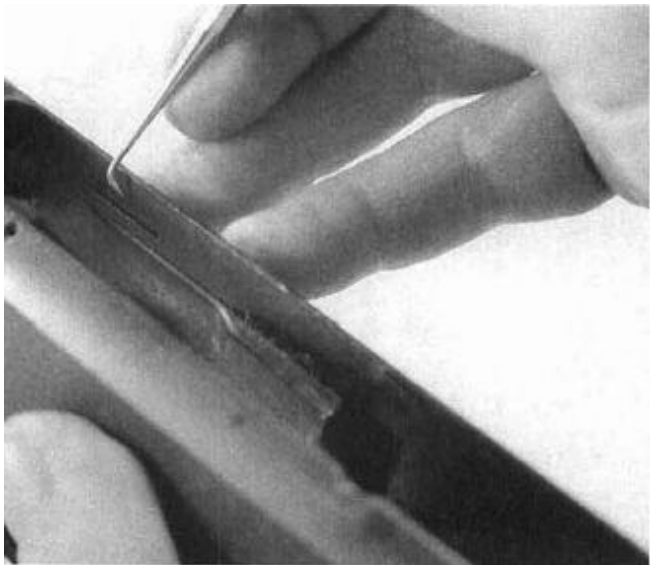
**28.** Remove the safety plunger from its recess on the left side.

**29.** Drifting out this cross pin will release the safety detent plunger and spring downward. Cover the hole below as the pin is removed. The safety button can then be taken out toward either side.



30. The magazine cut-off and its spring are retained by a small vertical screw. Control the spring during removal.

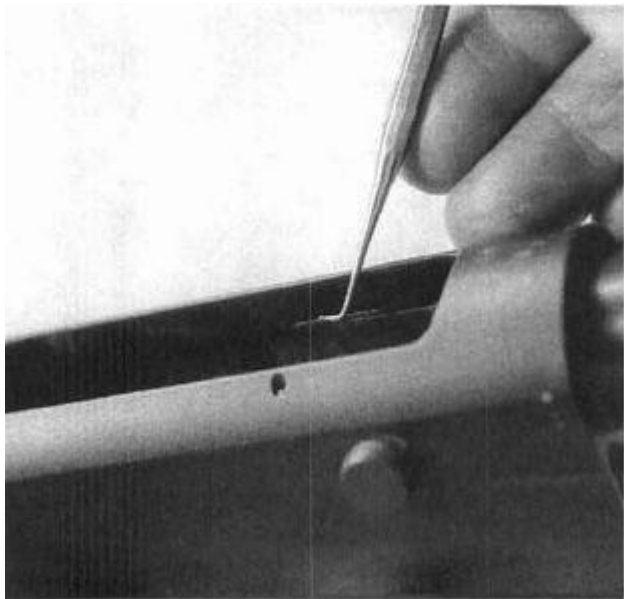




**31.** The carrier latch and its spring and button are retained by a vertical pin on the left side of the receiver. The pin is retained by a spring clip in a

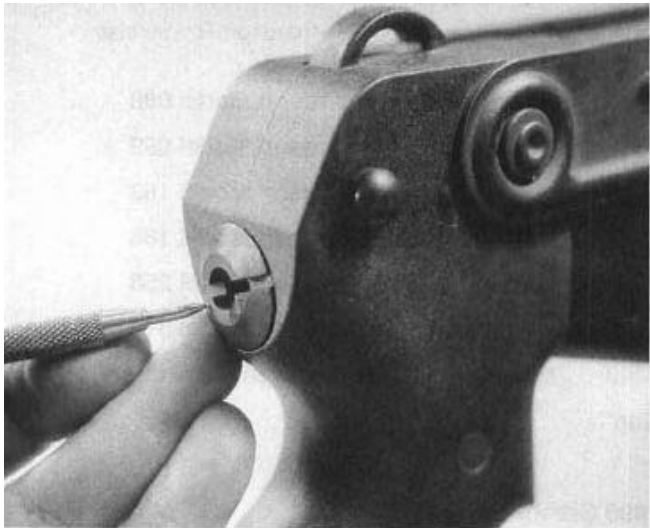
slot, just inside the lower edge of the receiver. A sharp L-shaped tool is used to remove the spring clip rearward, and the pin is pushed out upward to free the parts. Unless removal is necessary for repair, this system is best left in place.





**32.** The shell stop has the same arrangement on the right side, and the same instructions apply.

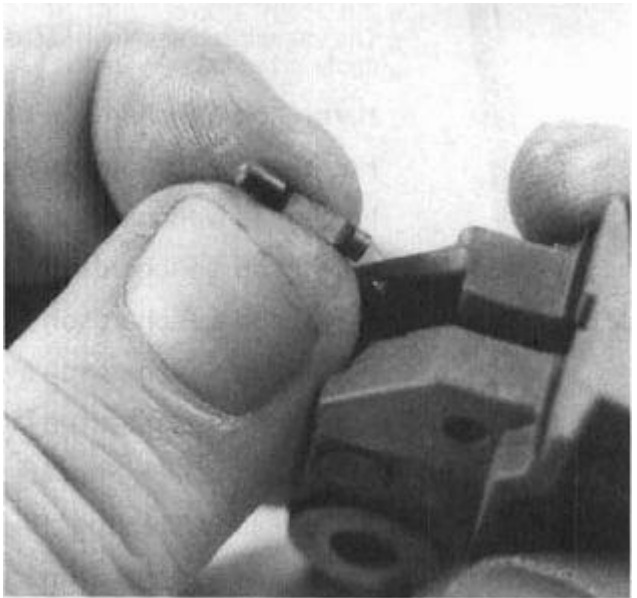
**33.** The folding buttstock is not disassembled in normal takedown. The buttstock and pistol grip unit can be taken off by unscrewing the large mounting bolt at the rear. The grip can also be taken apart by the removal of three cross screws, but this is not advisable unless repair is necessary.



## **Reassembly Tips:**

1. When replacing the safety plunger beside the hammer on

the left, be sure its rounded end is toward the safety. Insert a drift to insure that its recess aligns with the hammer pivot.





**2. 48** When replacing the trigger bar, be sure that the hook at its rear engages the rear edge of the plunger in the trigger.

Also, be sure that the sear spring is against the front of the plunger.

# **Harrington & Richardson Topper**





## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Harrington & Richardson Topper also apply to the following guns:

**Harrington & Richardson Model  
48**

**Harrington & Richardson Model  
058**

**Harrington & Richardson Model  
098**

**Harrington & Richardson Model  
158**

**Harrington & Richardson Model  
176**

**Harrington & Richardson Model  
198**

**Harrington & Richardson Model**

**490**

**New England Firearms "Handi-Gun"**

**New England Firearms "Pardner"**

**Harrington & Richardson Model  
490 Greenwing**

**Harrington & Richardson Model  
088**

**Harrington & Richardson Model  
099**

**Harrington & Richardson Model  
162**

**Harrington & Richardson Model  
188**

**Harrington & Richardson Model  
258**

**Harrington & Richardson Model**

**590**

**New England Firearms "Mini-Pardner"**

**Data:** Harrington 81  
Richardson  
Topper

**Origin:** United States  
Harrington &  
Richardson

**Manufacturer:** Gardner,  
Massachusetts

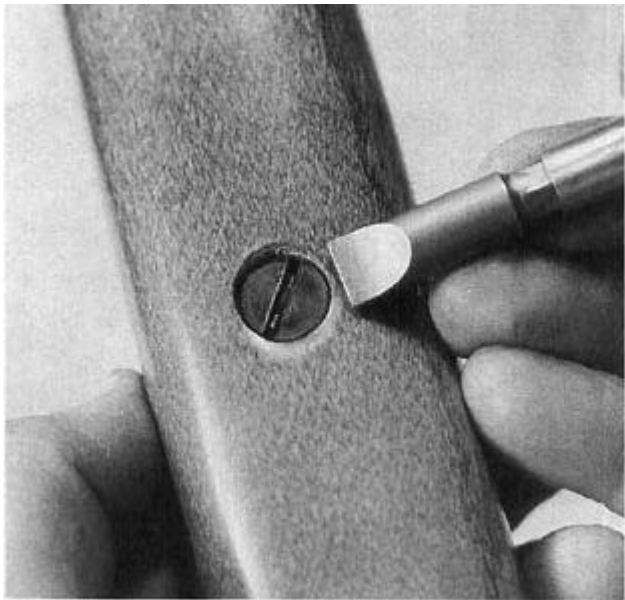
<b>Gauges:</b>	12, 16, 20, and 410
<b>Overall length:</b>	43 inches (with 28-inch barrel)
<b>Barrel length:</b>	26 to 36 inches
<b>Weight:</b>	5 to 6-1/2 pounds

The Model 158 used here is one of a long line of H&R single-barrel guns, named in 1946 the "Topper." Introduced in 1962, the Model 158 designation was changed to Model 58 from 1975 through 1979, and was later called the Model 058. Several sub-models have also been offered, including youth models with shorter stocks and barrels. The

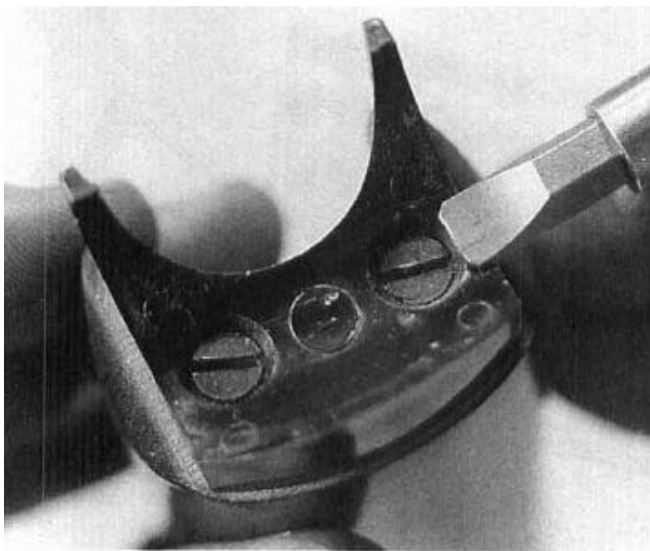
mechanical changes have been so slight over this period that the instructions will generally apply. They will also apply generally to the later guns by New England Firearms, and their successor, H&R 1871, Inc.

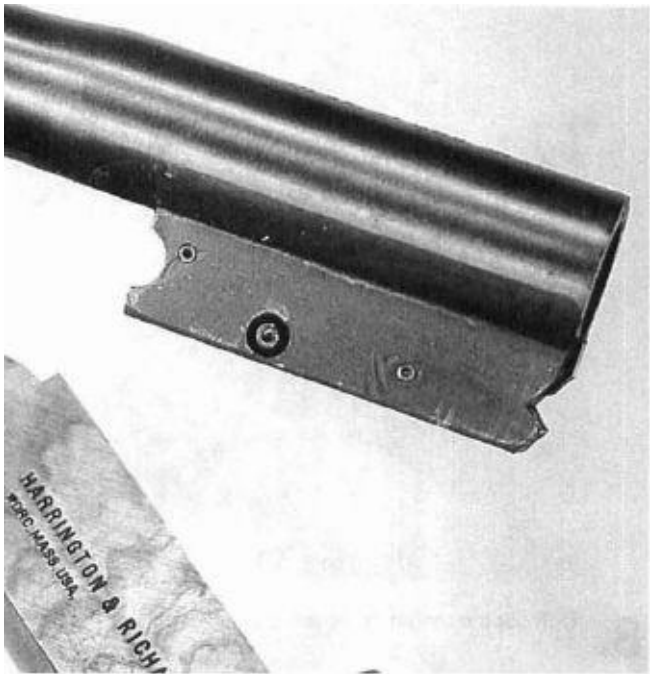
## **Disassembly:**

- 1.** Remove the large screw on the underside of the forend, and take off the forend downward and toward the front.



2. Removal of the two screws at the rear of the forend will allow the forend spacer to be taken off.

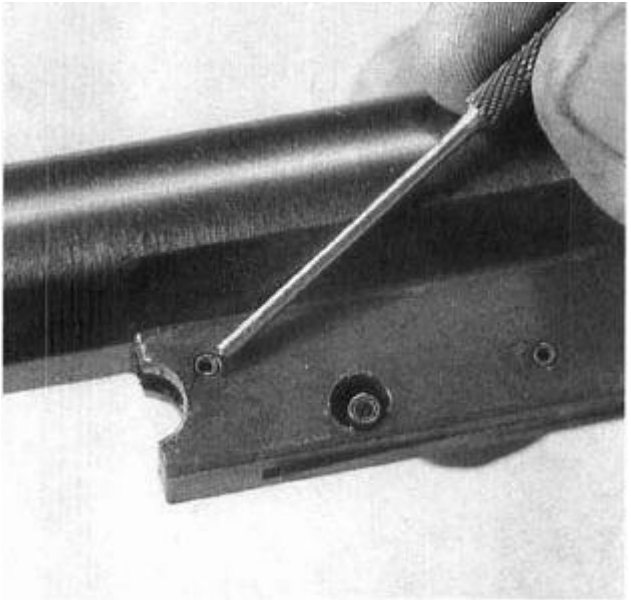




3. Operate the barrel latch, tip the barrel unit down beyond its



normal open position, and  
remove the barrel upward.



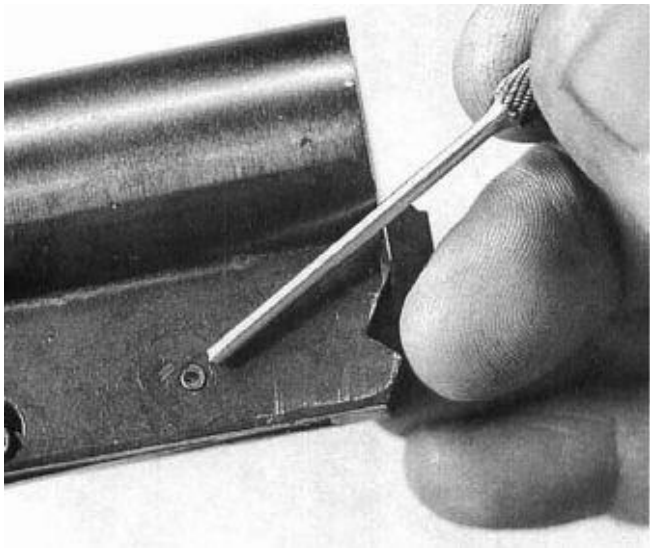
**4.** Insert a screwdriver above the

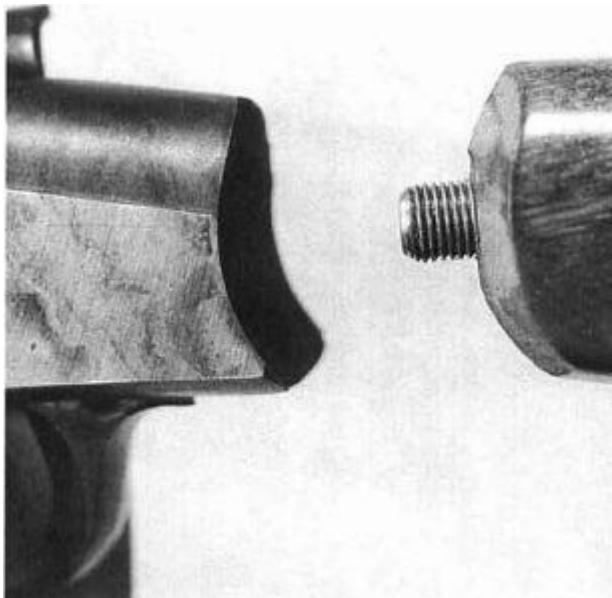
large roll pin in the over-sized hole in the barrel underlug, and lever the pin downward, releasing the ejector to snap to the open position. Drift out the small cross pin at the upper front of the underlug, and take out the ejector spring toward the front. The spring will have some tension, so control it and ease it out.

## **Disassembly:**

5. Drift out the small cross pin near the lower edge of the

underlug, and the large cross pin in the over-sized hole, and remove the ejector catch and its coil spring downward. Remove the ejector toward the rear.

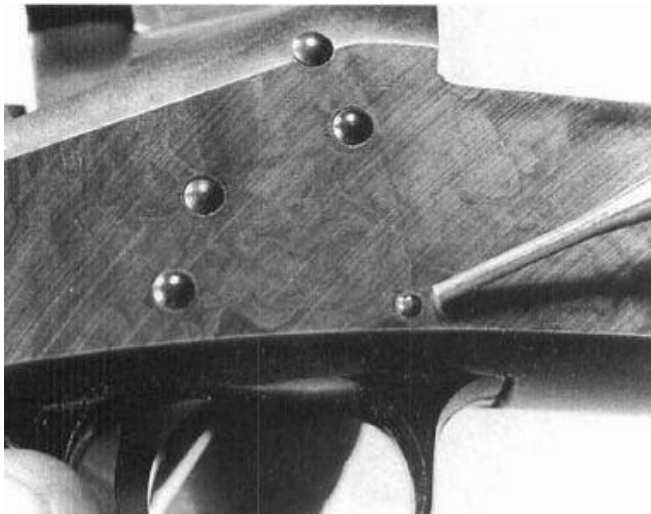




6. Remove the buttplate, and use a long-shanked screw-driver or a socket wrench of suitable size to back out the stock bolt.

Remove the bolt, washer, and stock toward the rear.

7. Drift out the small cross pin at the front of the trigger guard. If the pins are as originally installed, they should all be drifted out toward the left, as one end is slightly enlarged and ridged for tight seating. There is always the possibility that someone has reversed the pins, so check before driving them out.





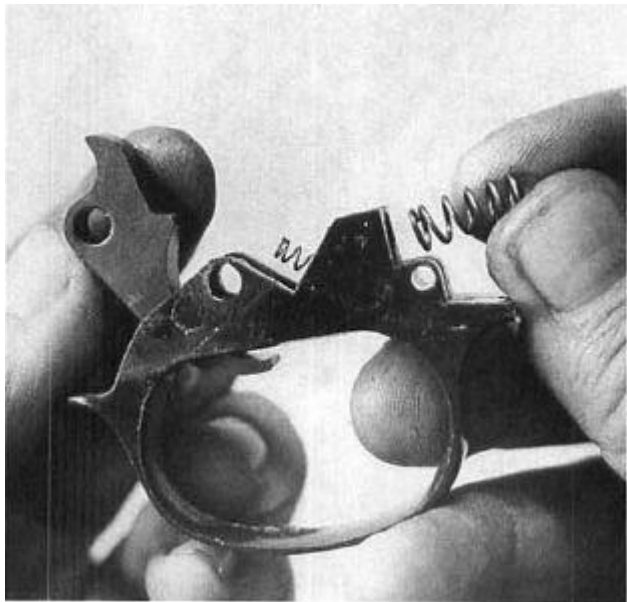
**8.** Drift out the trigger cross pin toward the left.

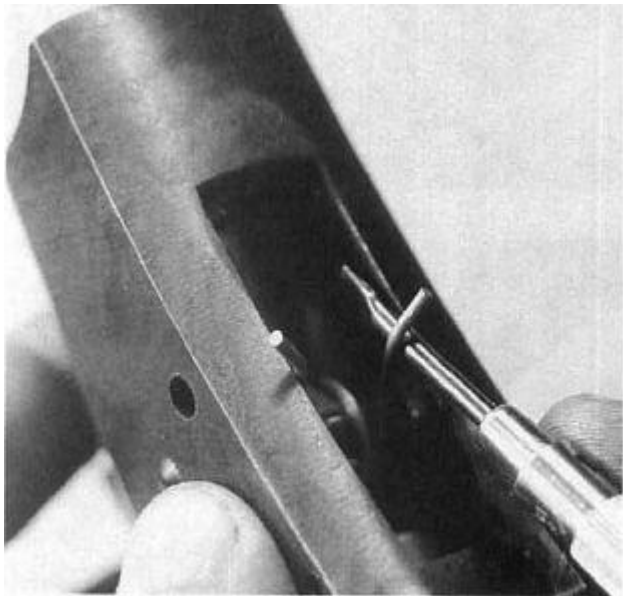




**9.** Remove the trigger assembly downward.

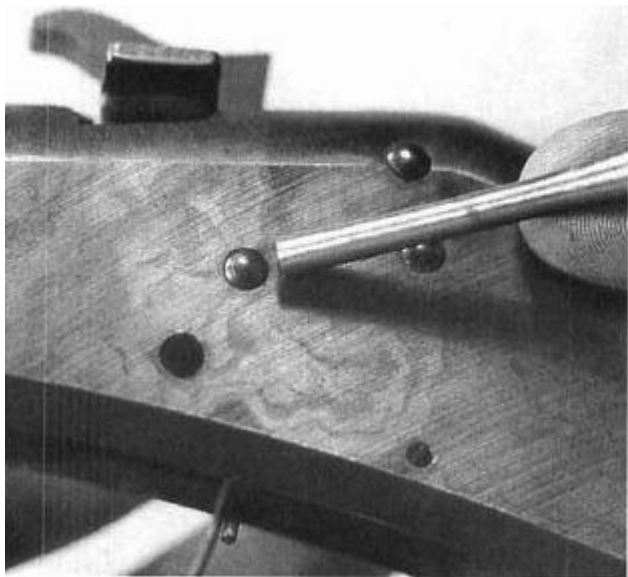
**10.** The trigger, trigger spring, and barrel latch spring are easily removed from the guard unit.





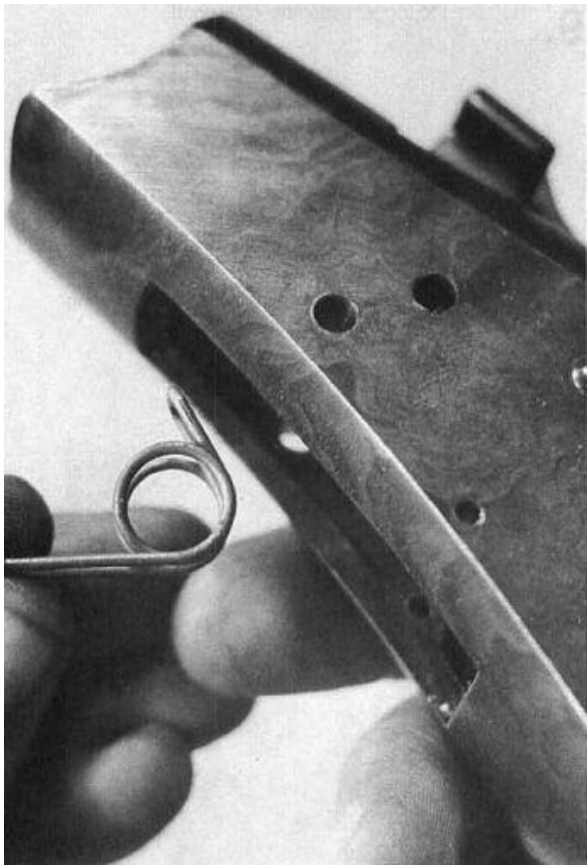
- 11.** Insert a screwdriver into the bottom of the receiver, and nudge the tails of the hammer spring from the inside edges of

the receiver, allowing them to rotate downward.



**12.** Drift out the hammer cross pin toward the left.



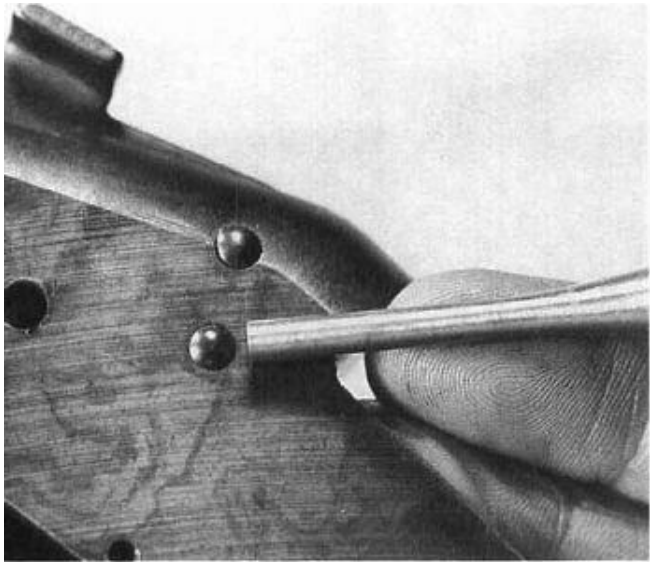


**13.** Remove the hammer spring downward.

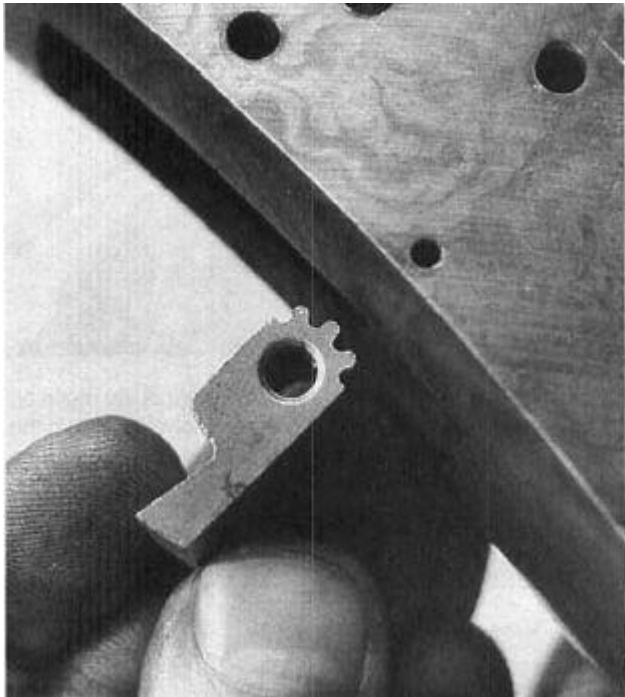
14. Remove the hammer downward.





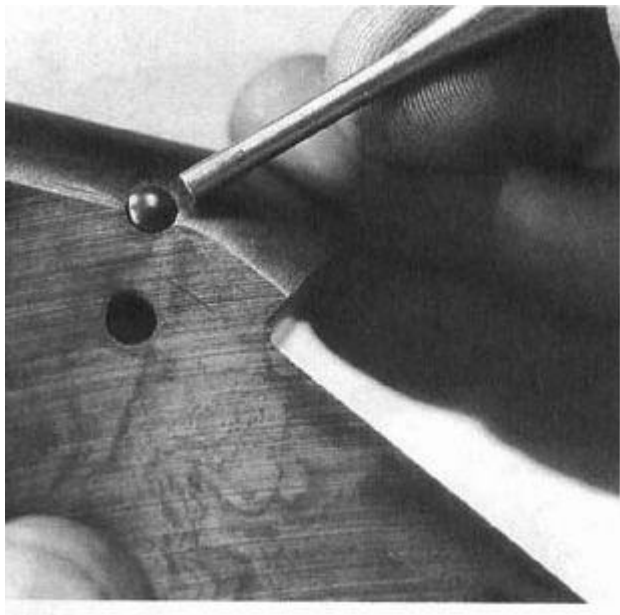


15. Drift out the barrel latch cross pin toward the left.

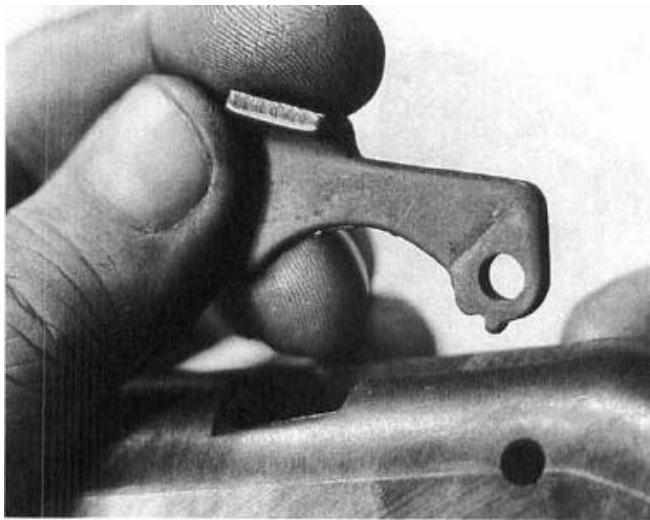


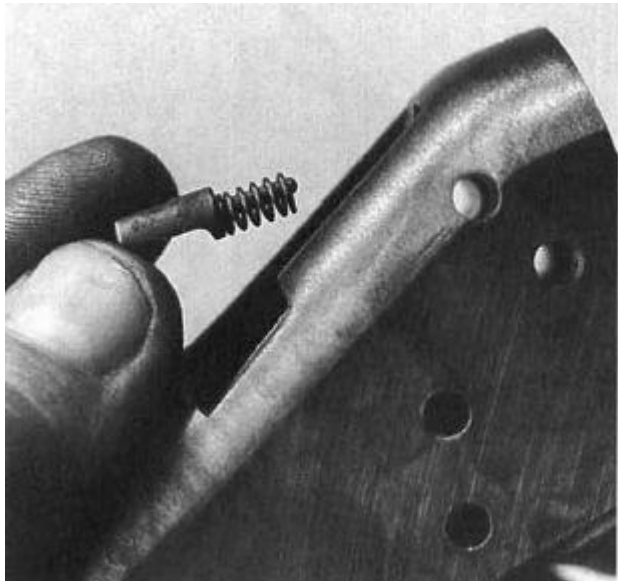
**16.** Remove the barrel latch block downward.

**17.** Drift out the upper cross pin toward the left.



**18.** Remove the barrel latch lever upward.

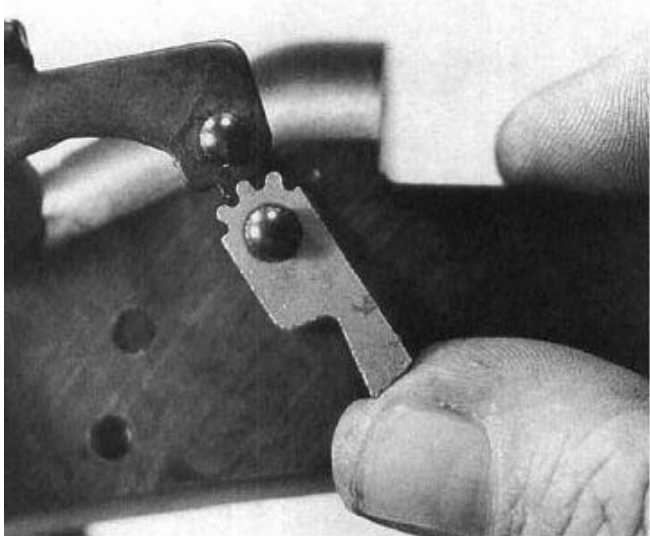




**19.** Remove the firing pin and its return spring toward the rear.

# Reassembly Tips:

1. When replacing the barrel latch block, be sure the ratchet teeth on its upper edge engage the lobes on the lower edge of the latch lever, as shown, to give the latch block the proper arc. The latch lever and block are shown assembled outside the receiver, on their respective pins, for illustration purposes only.



2. When replacing the trigger assembly, use a slave pin to hold the trigger in place until the guard is back in the receiver and the original pin is



driven into place. When installing the guard unit, insert the forward end first, being sure that the barrel latch spring engages the back of the latch block, then tip the rear of the unit into place.



# High Standard Flite-King



## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the High Standard Flite-King also apply to the following guns:

**J.C. Penny Model 401**

**Sears Model 21**

**Sears Model 20**

Data: High Standard Flite-King

Origin: United States

Manufacturer: High Standard Mfg.  
Co., Hamden,

Gauges:	Connecticut 12, 16, 20, 28, and 410
Magazine capacity:	5 rounds
Overall length:	47-112 inches (with 28-inch barrel)
Barrel length:	20 to 30 inches
Weight:	6 to 7-114 pounds

After making this gun for several years as the Sears Model 20, the High

Standard company in 1960 began marketing it under their name as the Flite-King. The 28-gauge gun, made in small quantity, had a different internal mechanism, but the others, including the production for Sears and J.C.Penny, were the same as the gun shown in the photos. Production ended in 1976, but judging from the number seen, the Flite-King was a very popular gun in its time.

## **Disassembly:**

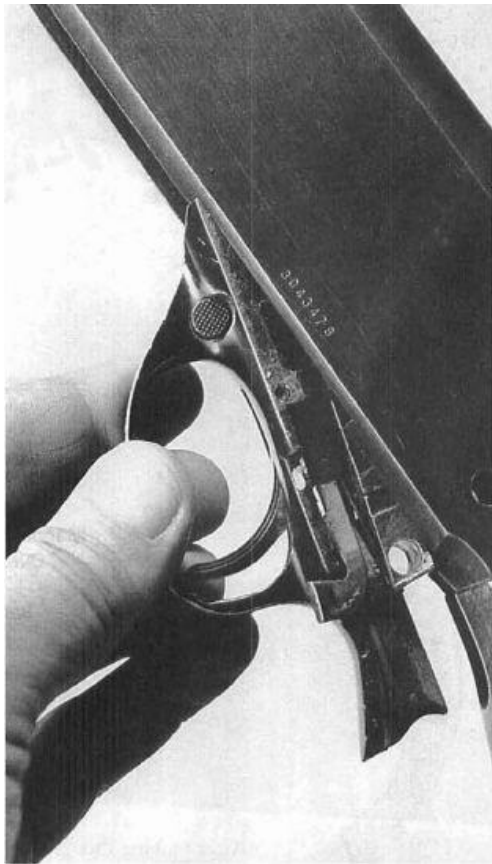
1. Cycle the action to cock the internal hammer, and set the safety in the on-safe position.

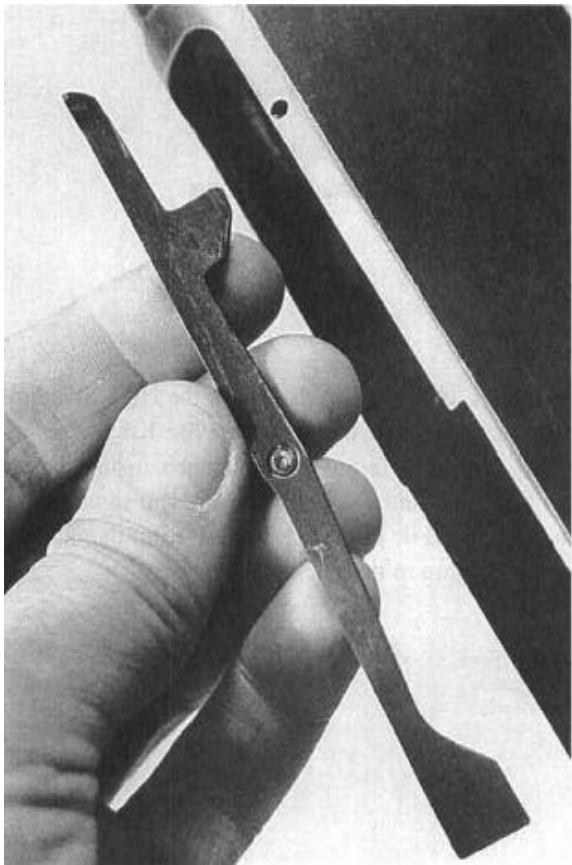
Push out the large cross pin in the lower rear area of the receiver.



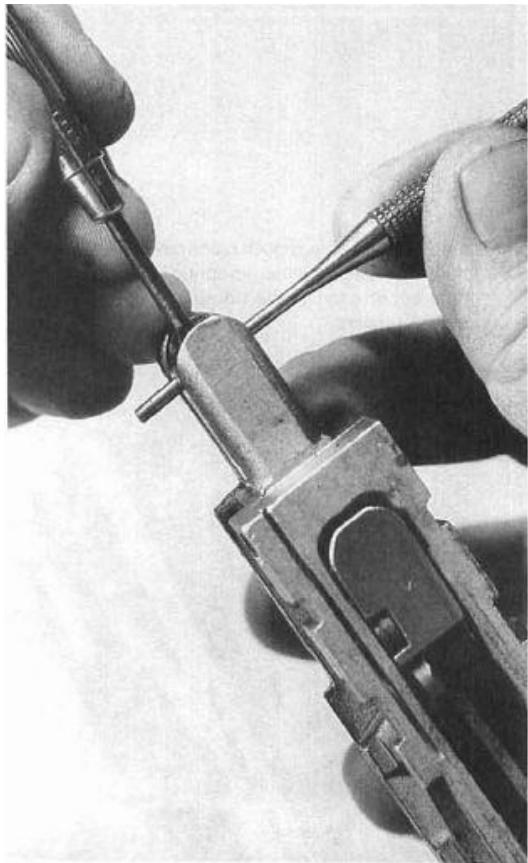


2. Tip the trigger housing down at the rear, then remove it toward the rear and downward.



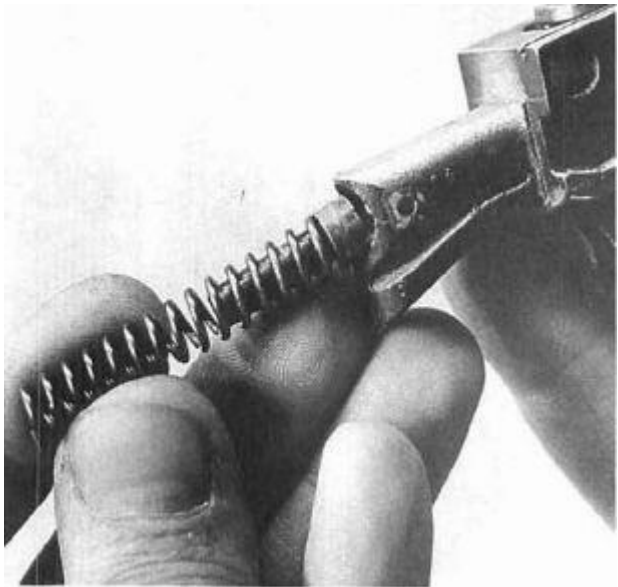


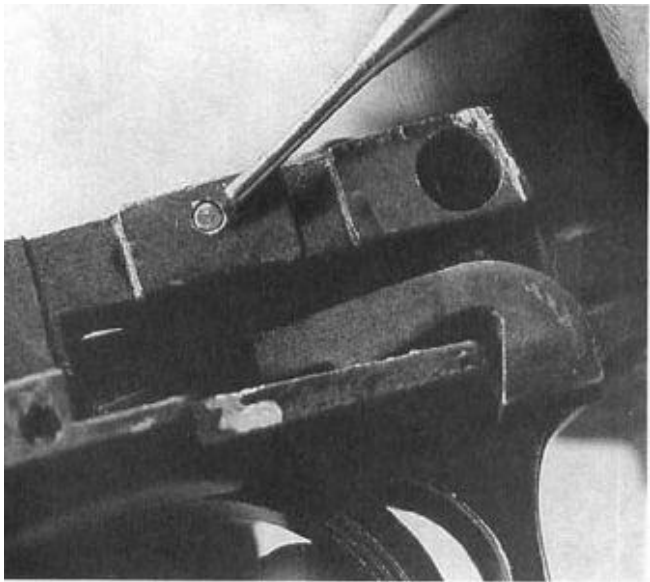
- 3.** Lift the right shell stop out of its recess on the inside of the receiver wall, and remove it downward.



**4.** Move the safety to the off-safe position, restrain the hammer, pull the trigger, and ease the hammer down to the fired position. Insert a tool at the rear of the trigger housing to slightly depress the hammer spring, and push out the retaining cross pin. Caution: The spring is still under some tension, so control it and ease it out.

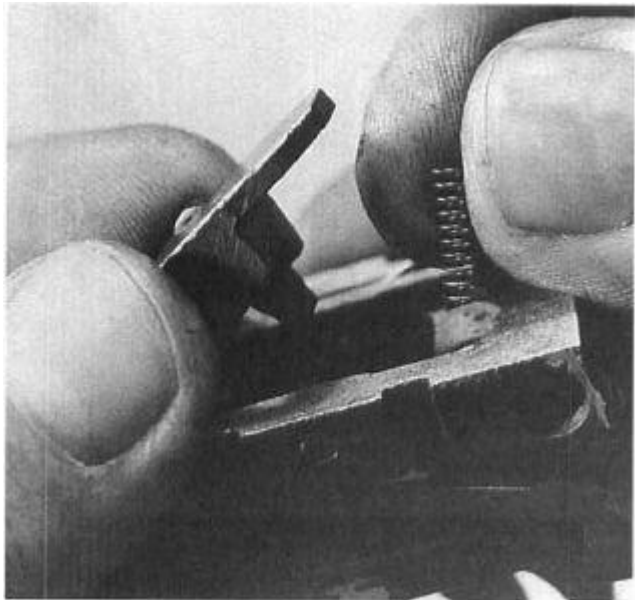
**5.** Remove the hammer spring and its plunger toward the rear.





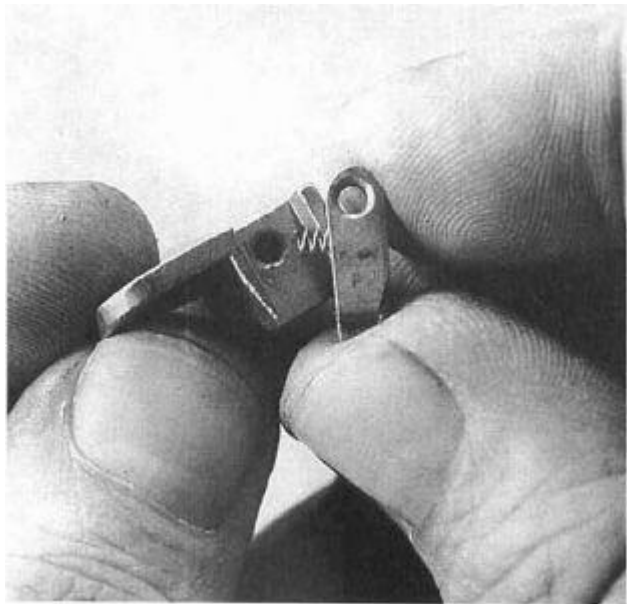
**6.** Drift out the trigger lock cross pin.





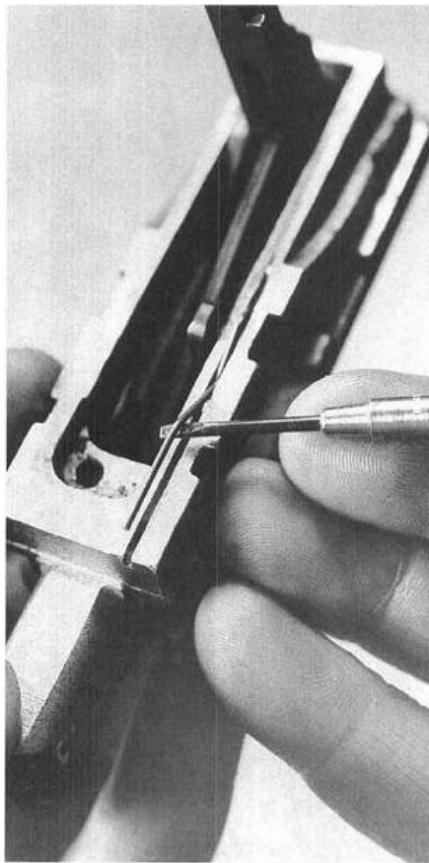
7. Remove the trigger lock and its pawl upward, and take out the trigger lock spring from its well in the top of the housing.

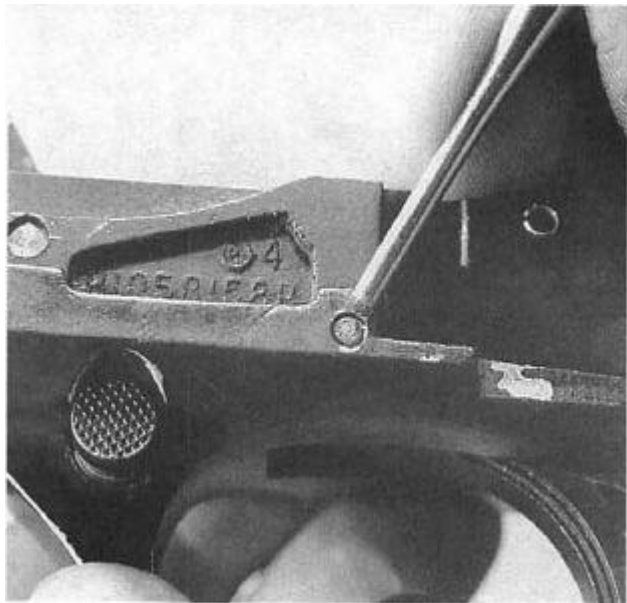
8. Detach the pawl from the recess on the right side of the trigger lock, and remove the small spring from the rear of the pawl.



**9.** removal of the trigger lock cross pin will also free the housing retaining cross pin spring from its slot on the right upper edge

of the housing, and it can be removed upward.

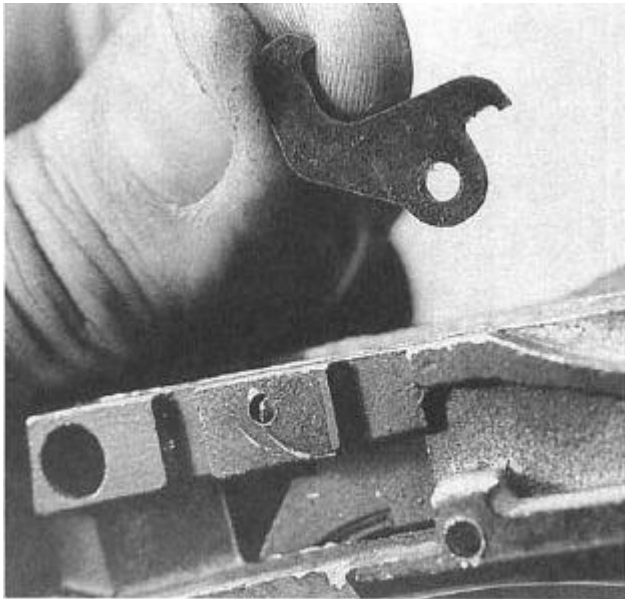




**10.** Tip the hammer all the way forward, and swing the hammer strut up for clearance. Drift out the cross pin at the

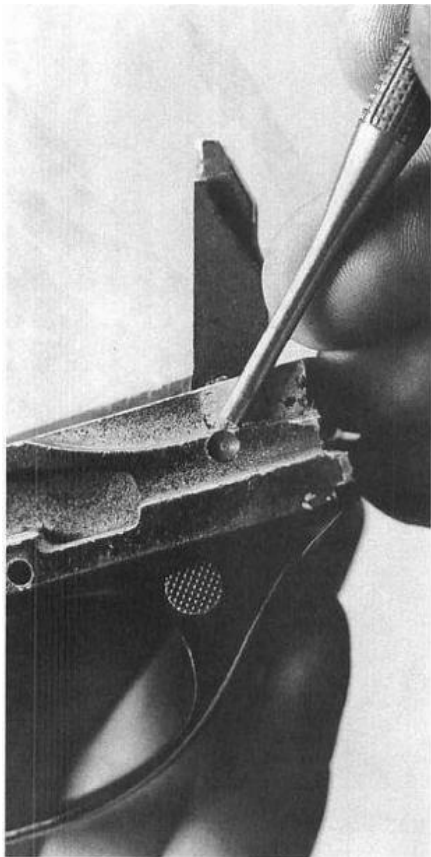
center of the housing near the lower edge. Restrain the escapement hook as the pin is drifted out.

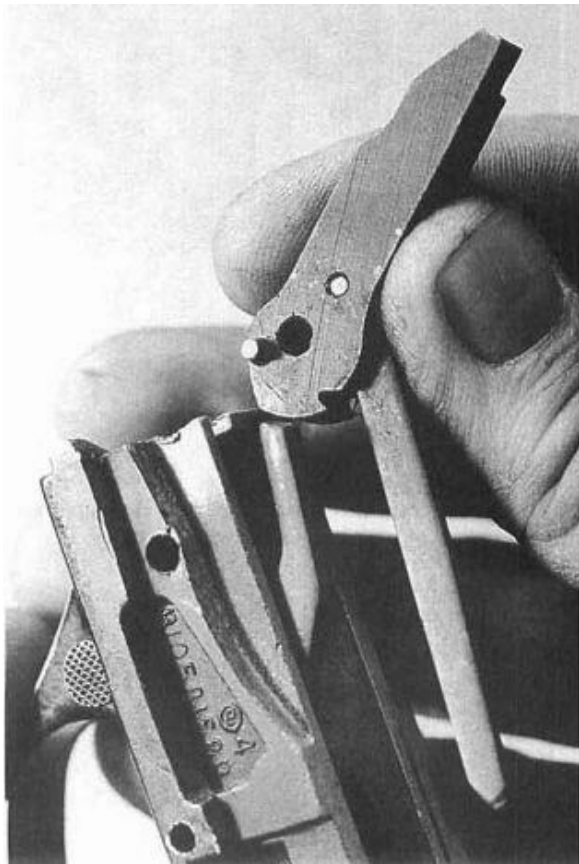
- 11.** Remove the escapement hook upward, and take out the hook spring and plunger from the top of the trigger.



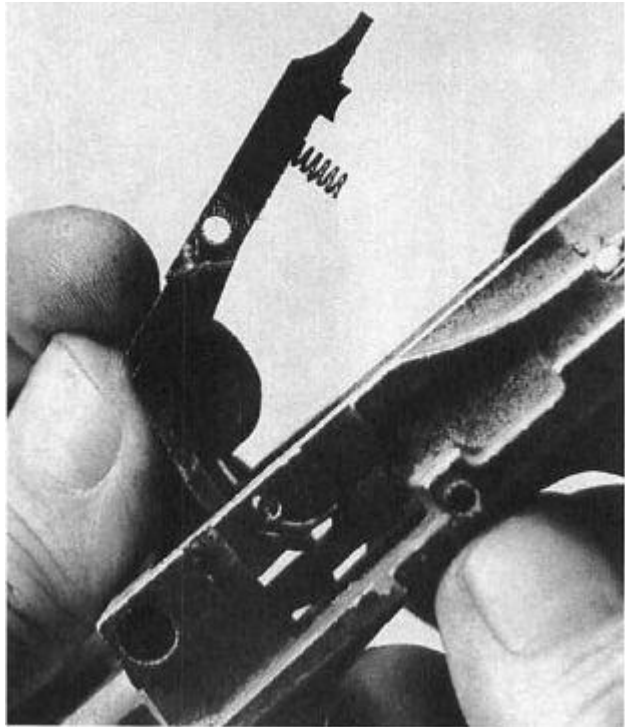
**12.** Drift out the hammer pivot pin.





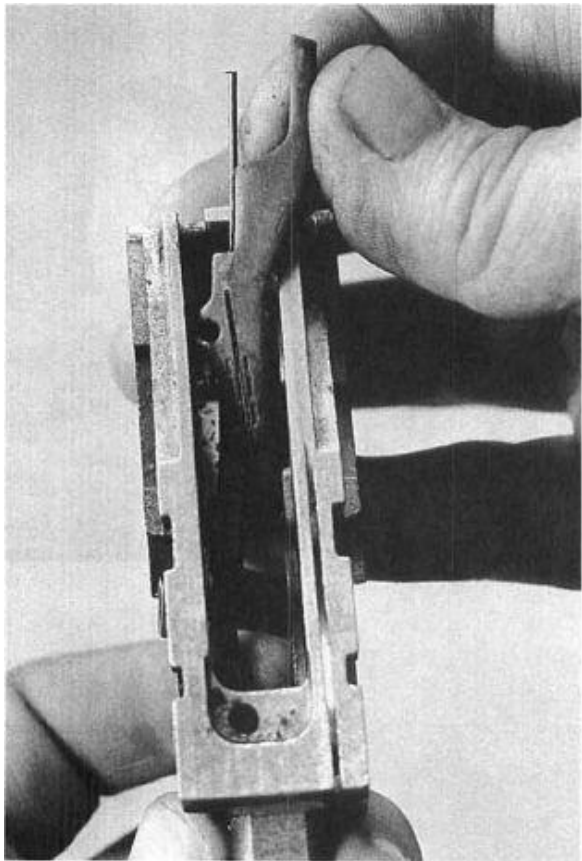


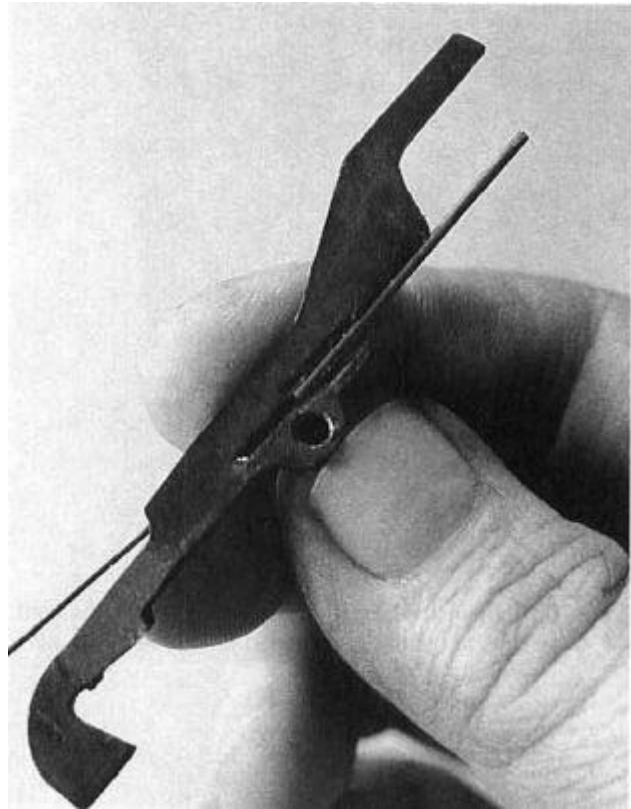
- 13.** Remove the hammer upward and toward the front. Drifting out the cross pin in the hammer will allow removal of the strut.
  
- 14.** Remove the trigger upward, along with the small spring mounted in the underside of its forward projection.



**15.** Lift the front of the slide latch,

then swing it over toward the right until the operating handle can be moved inward through the opening in the housing. Remove the slide latch upward and toward the right.

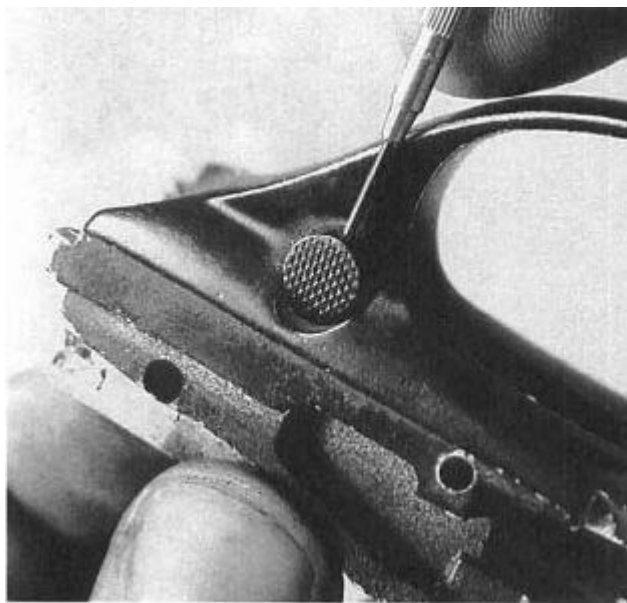




- 16.** The front and rear springs of the slide latch are staked in place on each side of the slide latch, and removal is not advisable except for repair.
- 17.** With the safety in the off-safe position, insert a small-diameter tool in the hole on the underside, near the right end of the safety button, and compress the safety plunger and spring upward. The safety button can then be moved out of the housing toward the left, and the plunger and spring are

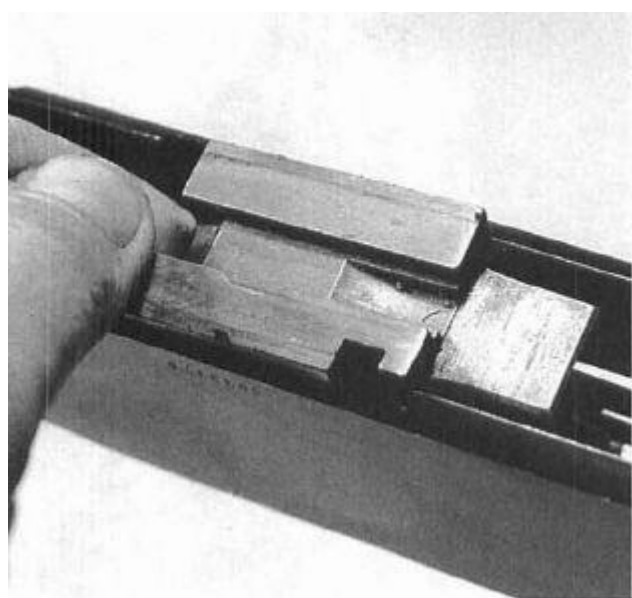


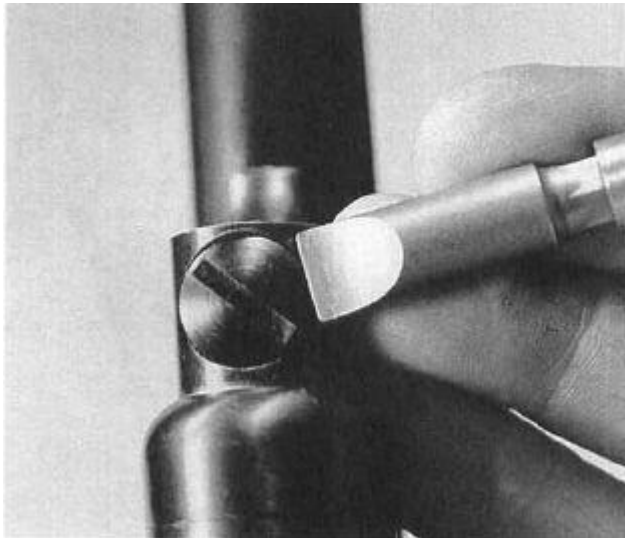
removed downward.



**18.** Move the slide and bolt assembly toward the rear until

the bolt slide piece aligns with the triggerhousing recess in the receiver. Lift the slide piece away from the bolt, and remove it from the bottom of the receiver.

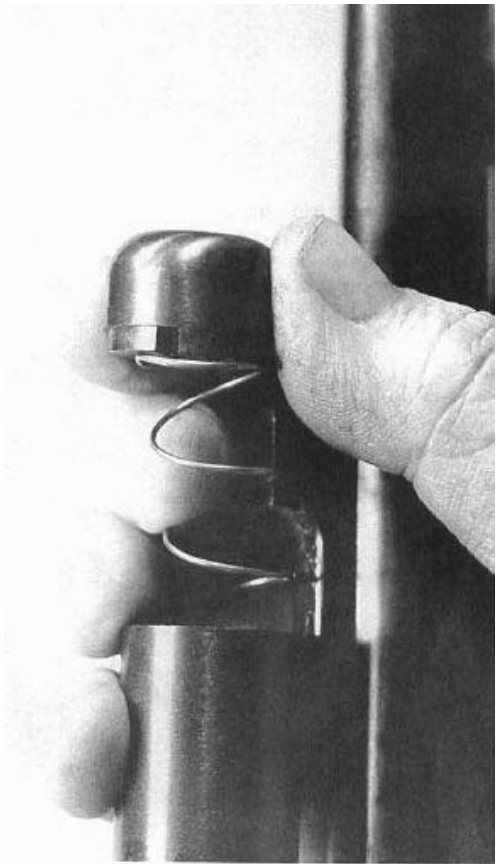




**19.** Remove the large vertical screw at the front of the magazine tube end piece.



**20.** Move the end piece outward, just enough for clearance, and allow its internal spring to push it forward for removal. Caution: While removing the end piece, keep the magazine end cap under control since the end piece retains the cap, and the magazine spring is under tension.



- 21.** Remove the magazine end cap, slowly releasing the tension of the magazine spring, and take out the spring and follower toward the front. Unscrew the magazine tube from the receiver.
- 22.** Remove the magazine tube and the action slide assembly toward the front.







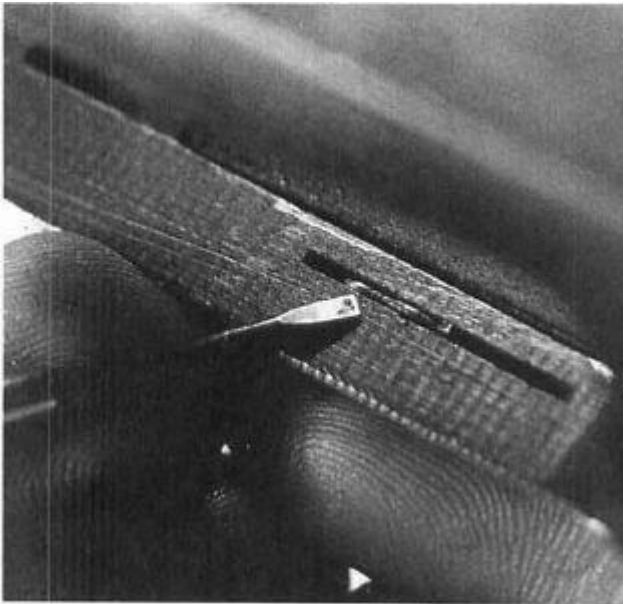
**23.** Move the bolt to the front of the receiver, and swing the carrier outward. Squeeze the rear arms of the carrier inward, just enough to clear the pivot studs inside the receiver, and remove the carrier.

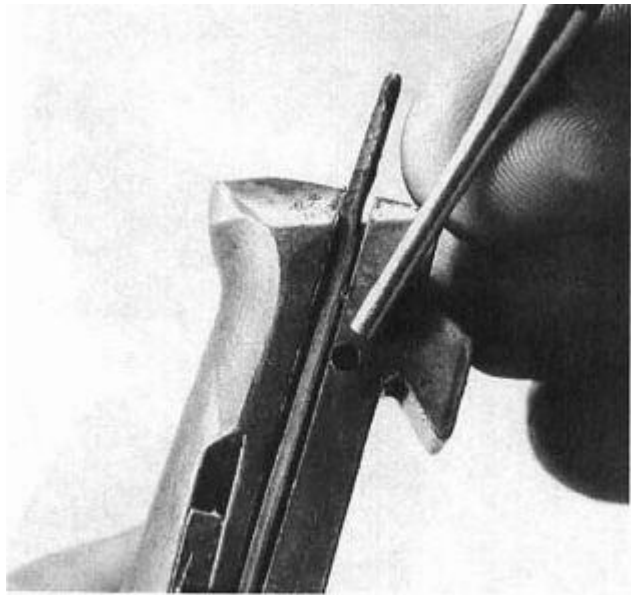


**24.** Remove the bolt from the receiver, moving it to the rear, then outward from the trigger housing area.

**25.** The left shell stop is retained by a vertical pin in the left wall of the receiver, and the pin is held by a spring clip set in a narrow slot near the lower edge of the receiver. Slide the spring clip out toward the rear, and use an L-shaped tool in the access hole inside the receiver to nudge the pin downward for

removal. The shell stop and its coil spring are then removed inward, and taken out downward.

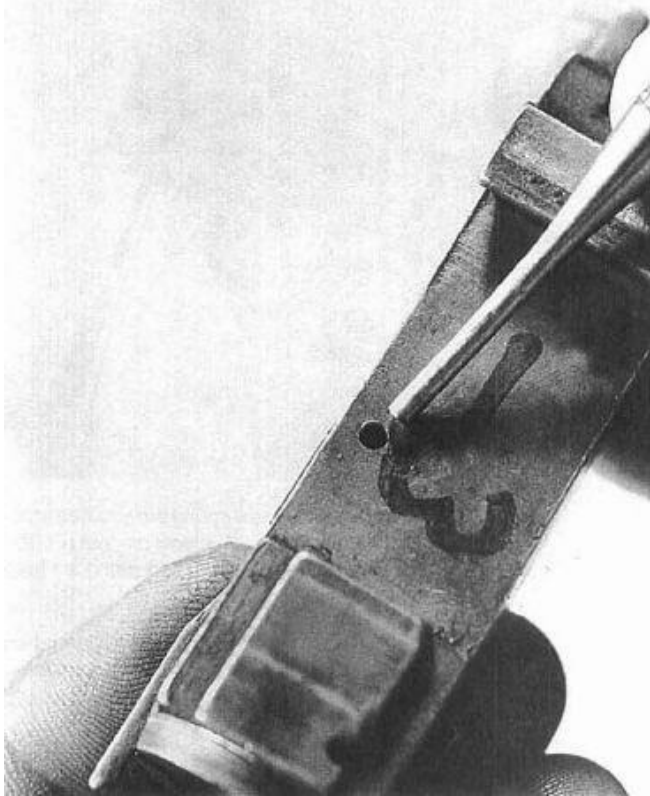




**26.** Drift out the cross pin at the lower rear of the bolt, and remove the firing pin and its return spring toward the rear.

Note that the cross pin must be drifted out toward the right.





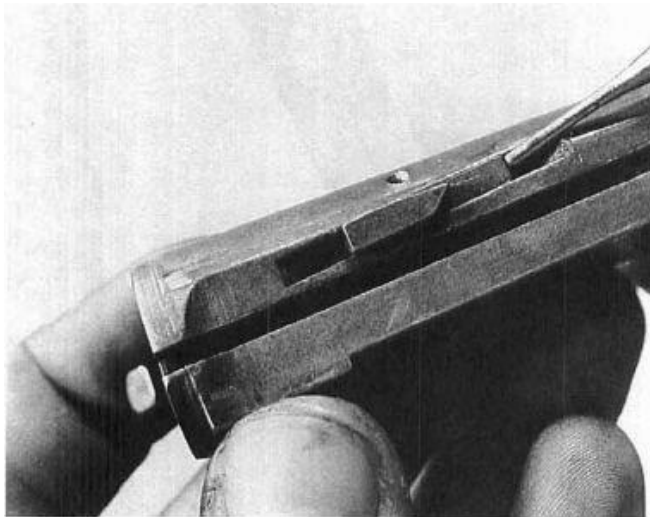
**27.** Drift out the vertical pin on the left side of the bolt upward.

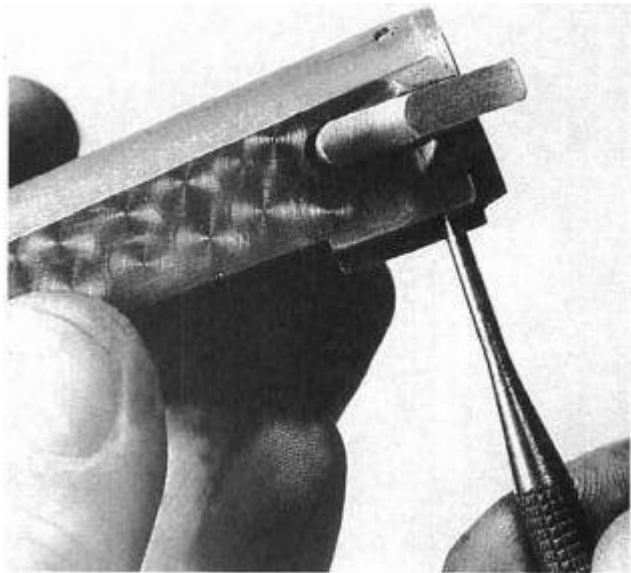
**28.** Remove the ejector and its spring toward the left. The spring is easily detached from the center of the ejector.



**29.** The carrier cam, located just above the ejector on the left side of the bolt, is also freed by removal of the ejector pin.

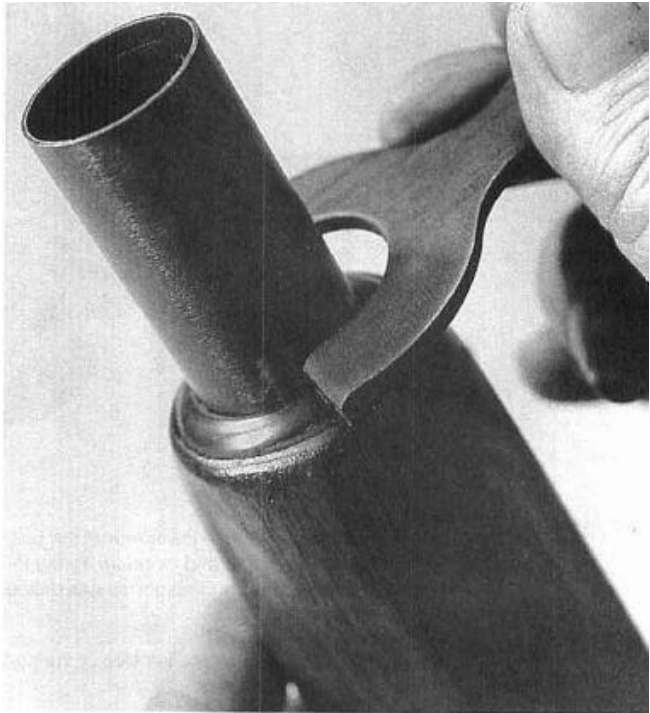
This part is usually tightly fitted, and unless necessary for repair, it is best left in place.





**30.** The extractor and its coil spring are retained on the right side of the bolt by a vertical pin that is drifted out upward,

and the extractor and spring  
are taken off toward the right.

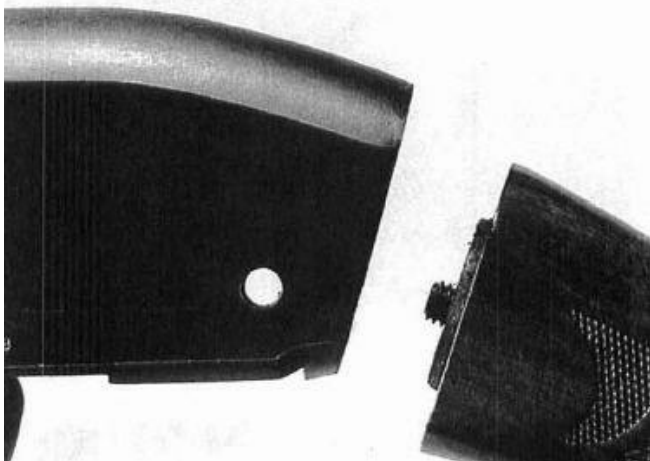


- 31.** Use a Brownells Winchester Model 12 forend cap nut wrench to remove the forend cap nut, unscrewing it counter-clockwise (front view).
- 32.** After the cap nut is taken off, remove the magazine tube toward the front. The action slide buffer spring can be slid off the tube toward the rear. The action slide tube and its attached bar can be removed from the forend wood toward the rear.





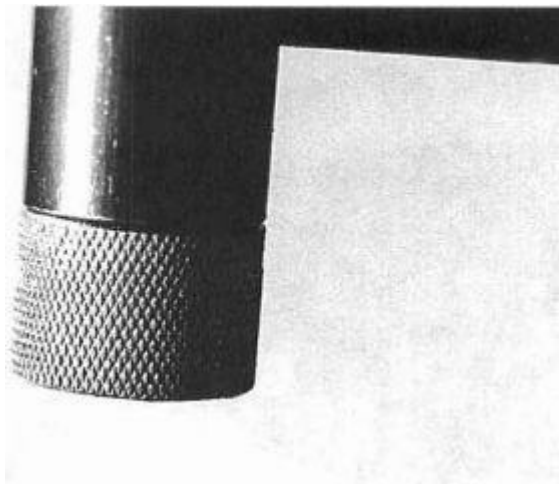
**33.** Remove the buttplate, and use a B-Square stock wrench or a long-shanked screwdriver to back out the stock bolt. Remove the stock bolt and its washers toward the rear, and take off the stock.



## Reassembly Tips:

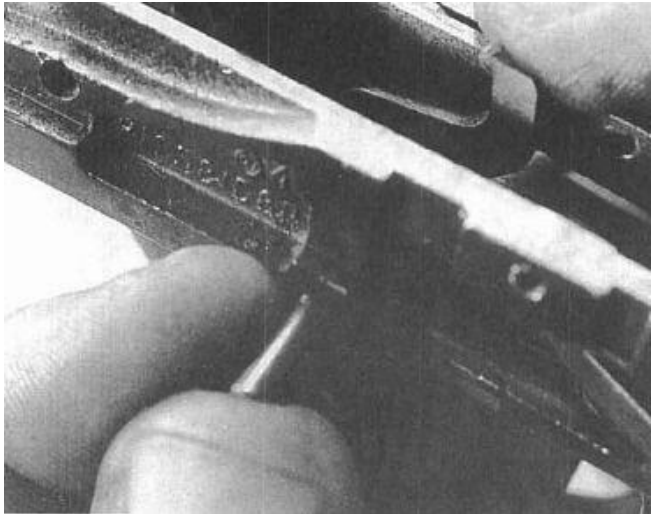
1. When replacing the ejector, care must be taken to i avoid damaging the spring. Set the ejector in its recess on the bolt

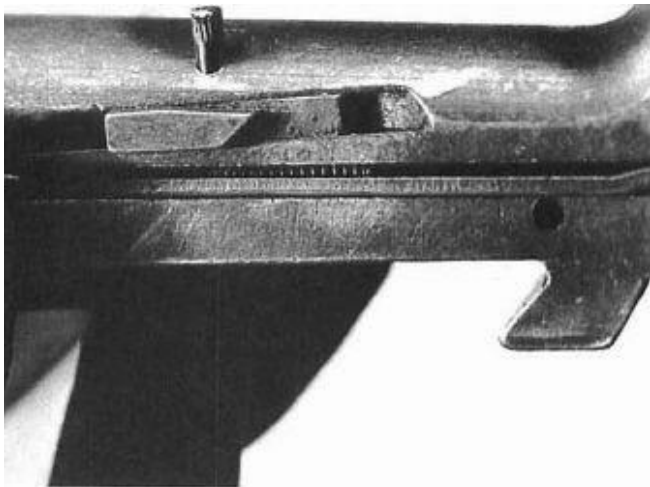
with the spring well to the rear, and drive the pin downward until it just touches the ejector. Push the ejector forward until the spring has tension against the pin, hold the ejector there, and drive the pin down into position.



2. When reassembling the trigger housing components, insert the center cross pin from the left through the slide latch and partially through the trigger. Then, install the escapement

hook spring and plunger, and the hook, and push the pin on through.





**3. 60** When replacing the trigger housing cross pin detent spring, note that its longer extension goes toward the rear, as shown. Use a tool to depress the spring at the cross

pin hole when inserting the  
pin.



# High Standard Supermatic





## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the High Standard Supermatic also apply to the following guns:

**Sears Model 60**

**Western Auto 420**

**Sears Model 66**

**Western Auto 425**

Data:	High Standard Supermatic Auto
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Origin:	United States
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Manufacturer:	High Standard Mfg. Corp. Hamden, Connecticut
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Gauges:	12, and 20
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Magazine	4 rounds
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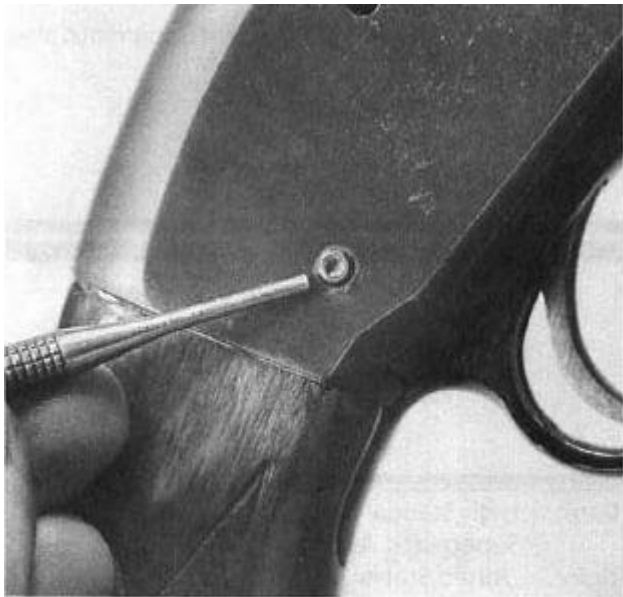
capacity:	47-3/4 inches
Overall length:	(with 28-inch barrel)
Barrel length:	22 to 30 inches
Weight:	7-1/2 (12 gauge)

Marketed under the name "Supermatic," this gun was made by the High Standard company from 1960 to 1976. In addition to their own brand, High Standard also made the gun on contract for large sales firms such as Sears, Roebuck & Company. One of the main design points was a gas control system that automatically adjusted to shells of different power. Early guns

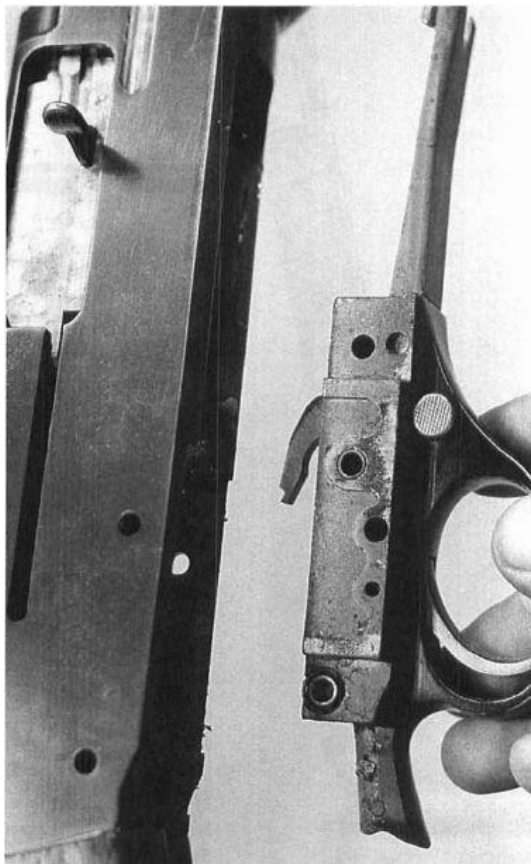
have slight differences in the mechanism, especially in the area of the operating handle and gas piston connector. Otherwise, the instructions will apply.

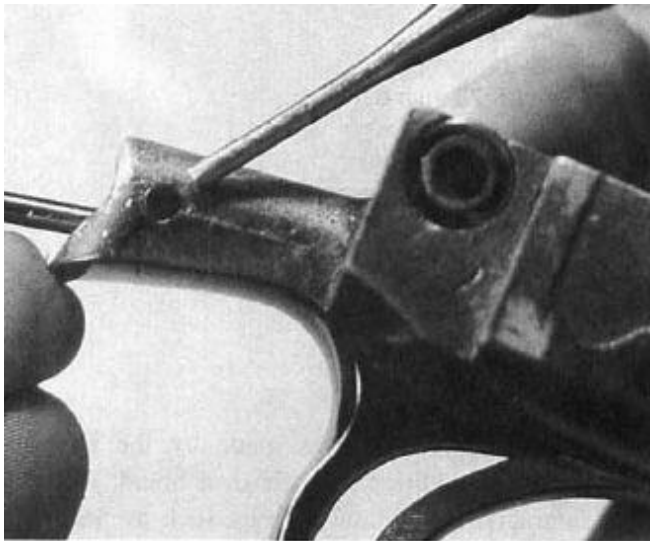
# Disassembly:

1. Cycle the action to cock the internal hammer, returning the bolt to the forward position. Set the safety in the on-safe position. Push out the two cross pins at the lower rear of the receiver.



**2.** Remove the trigger assembly downward.





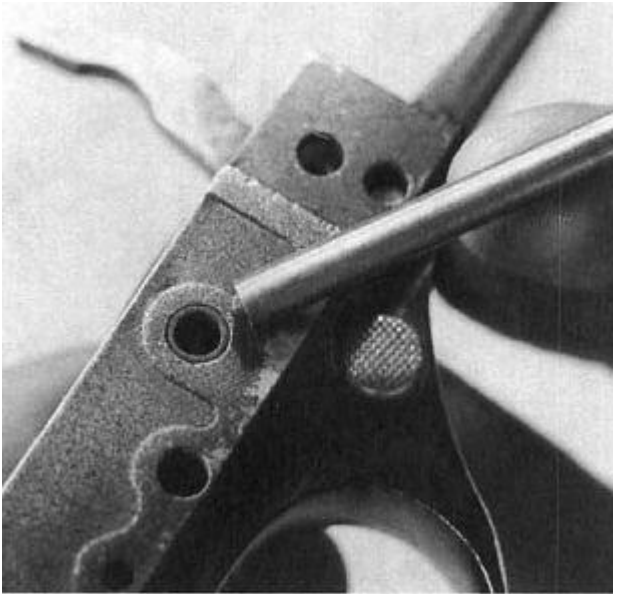
3. Move the safety to the off-safe position, restrain the hammer, and pull the trigger, easing the hammer down to the fired position. Push out the cross



pin at the rear of the trigger housing, and remove the hammer spring and its plunger toward the rear. Caution: The spring is under tension, so control it. Removal of the pin can be made easier by inserting a screwdriver at the rear to slightly compress the spring.

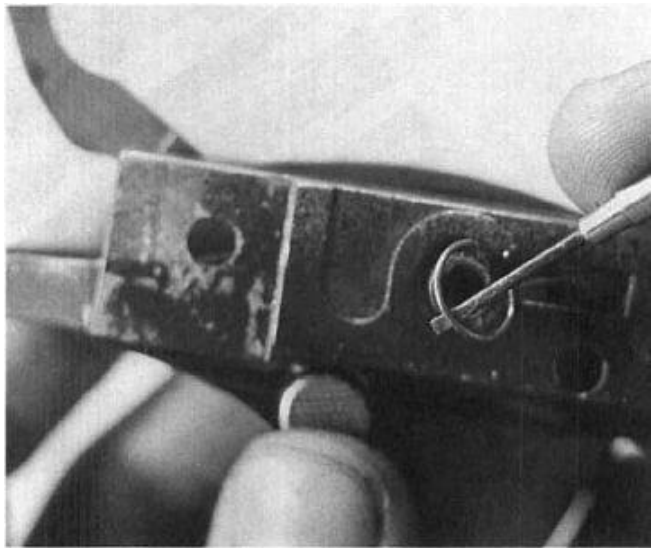
4. The carrier pivot is also the front cross pin sleeve. Push the pivot slightly toward the left, just enough to allow the carrier actuator spring to be detached from the end of the

pivot/sleeve.



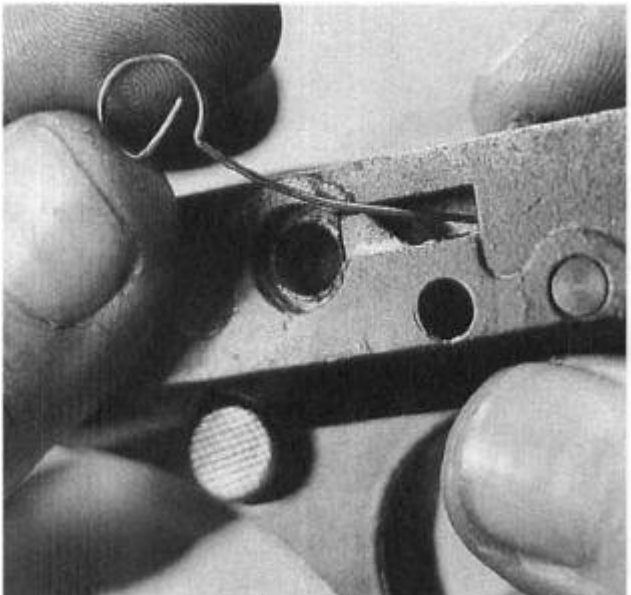
**5.** With the pivot extended slightly toward the left, unhook the

spring from its left tip, then remove the pivot sleeve from the housing. The spring is not removed at this time.

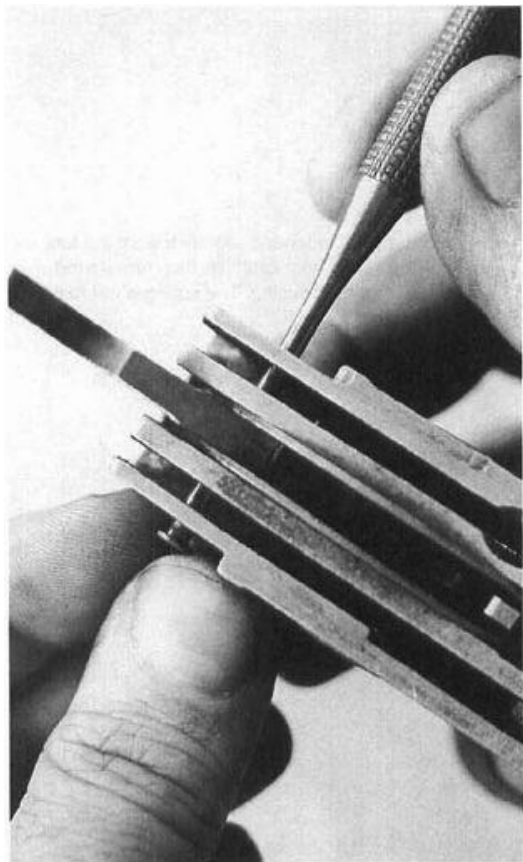




6. Remove the carrier upward and toward the front, and take out the carrier plunger and spring upward.

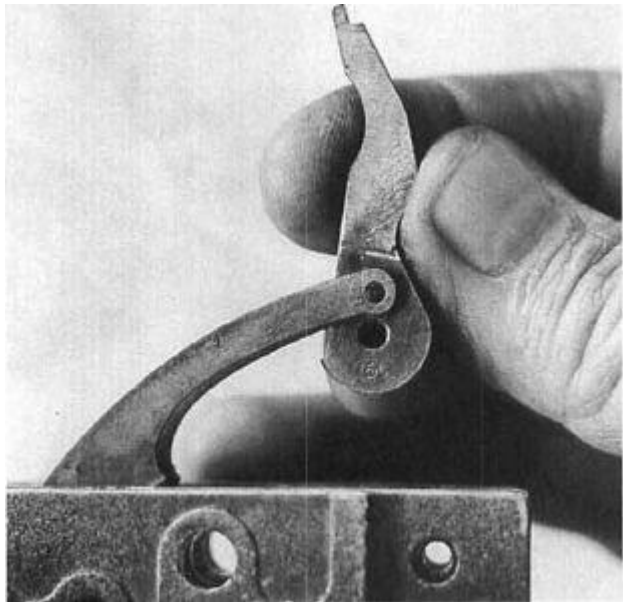


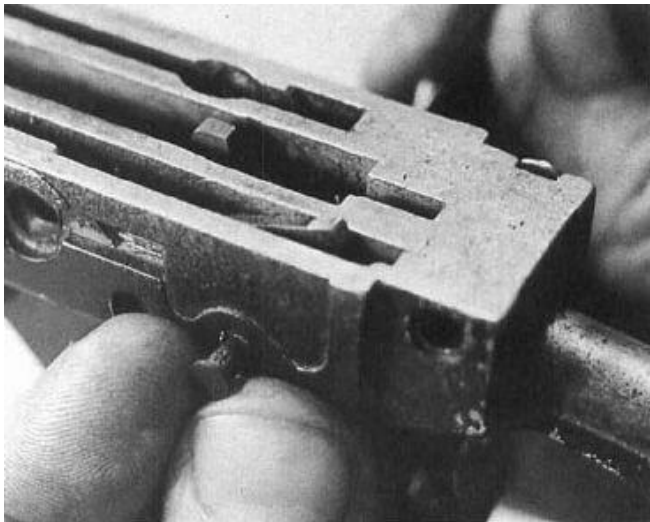
7. Turn the actuator spring to free its rear tip from the actuator stud, and remove the spring forward and toward the left.



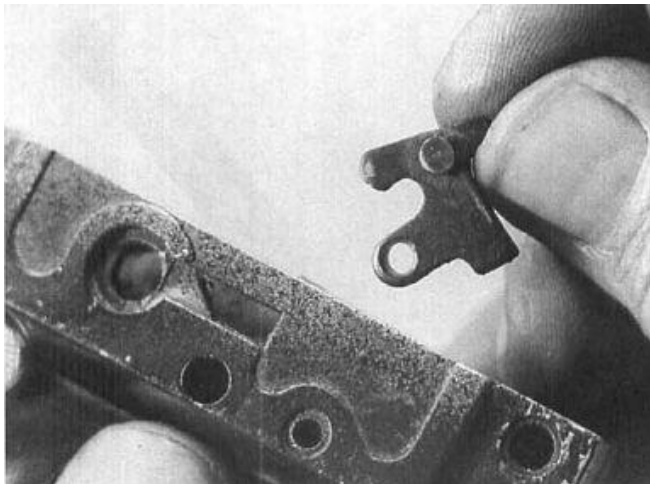
8. Push out the hammer pivot toward the left.
9. Remove the hammer upward. As the hammer clears, the two hammer struts will detach from the cross pin in the hammer, and the cross pin is also easily removed.





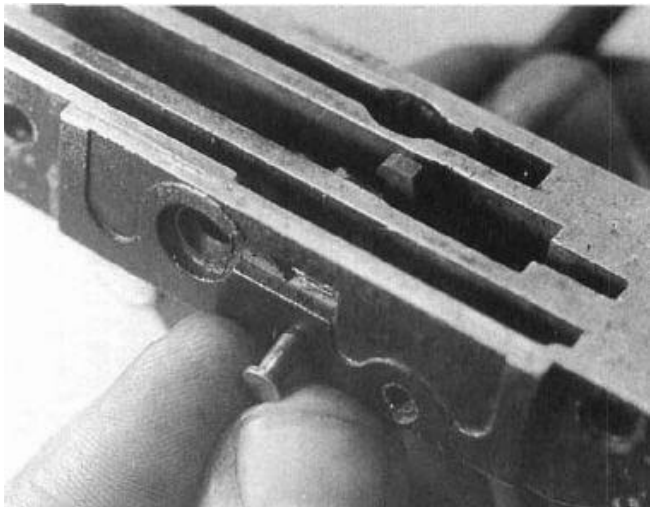


**10.** Push out the carrier actuator pin toward the left.

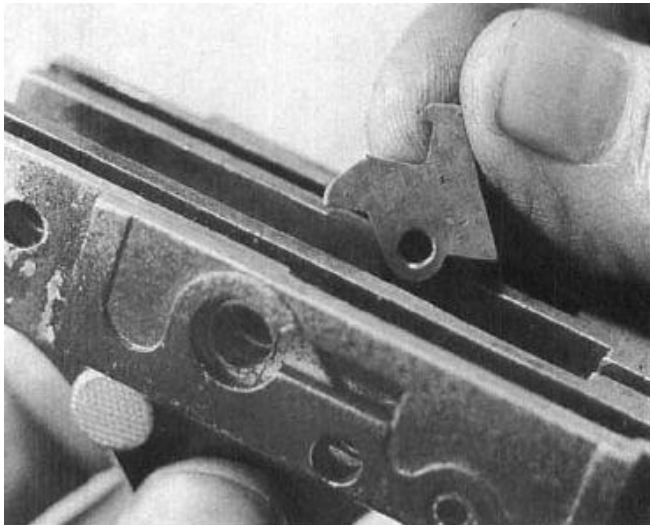


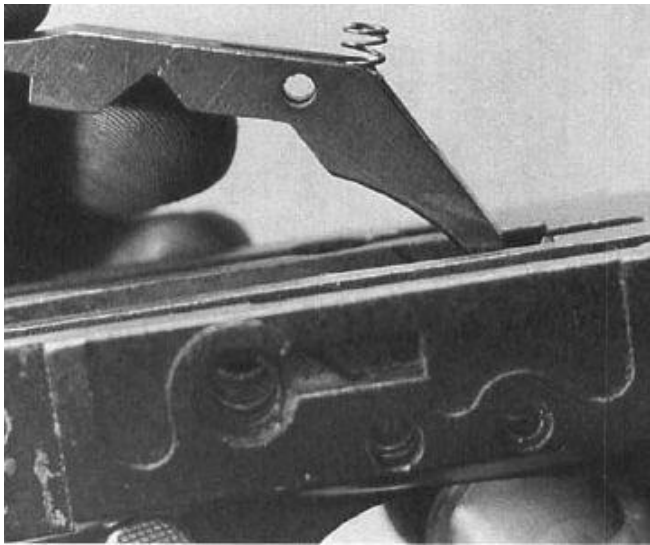
**11.** Remove the carrier actuator upward.

**12.** Push out the trigger cross pin toward the left.



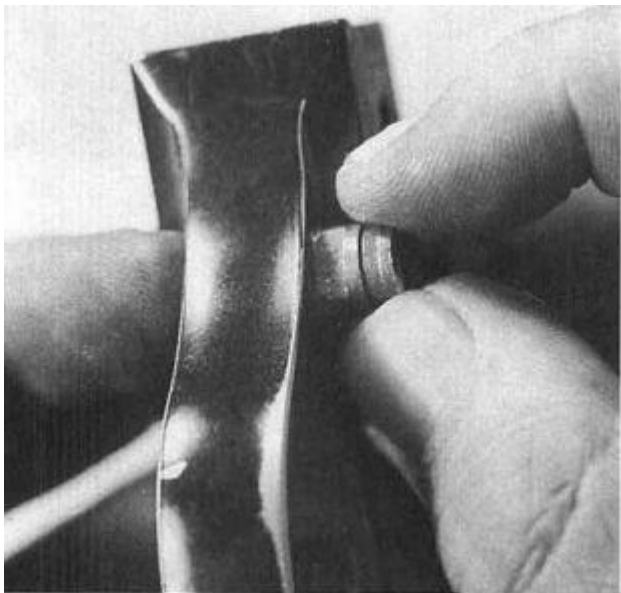
**13.** Remove the secondary sear from the top of the trigger.





- 14.** Remove the trigger from the top of the trigger housing. The sear spring is easily removed from the top of the trigger. Remove the trigger spring and

plunger from the floor of the housing, upward.

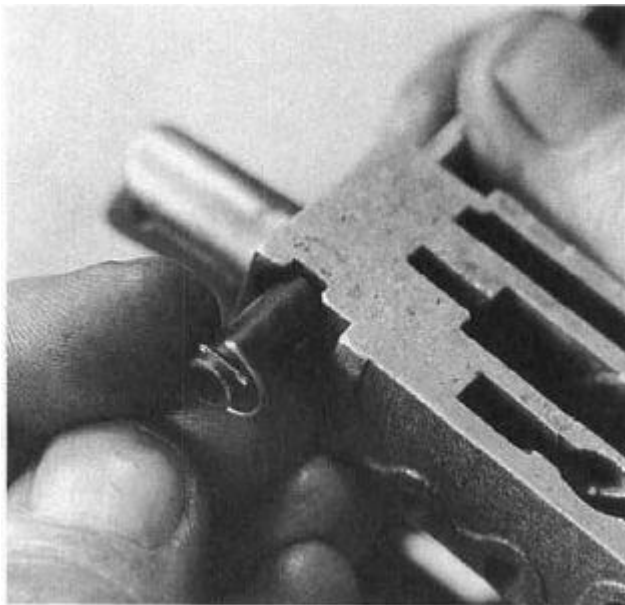


**15.** Position the safety exactly

half-way between its two normal stations in the housing, and give it one-quarter turn counter-clockwise (right side view), then push it out toward the left. Caution: As the safety clears the center, its plunger and spring will be released inside the housing, so control them and ease them out

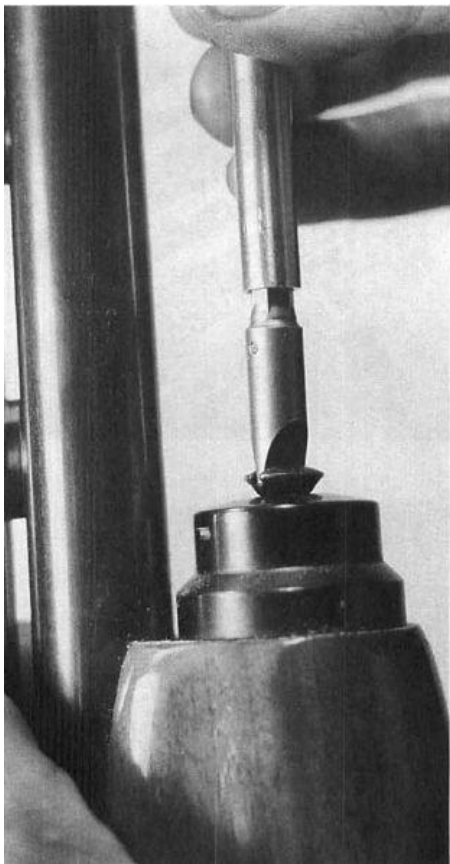
- 16.** Push out the rear cross pin sleeve toward the right.

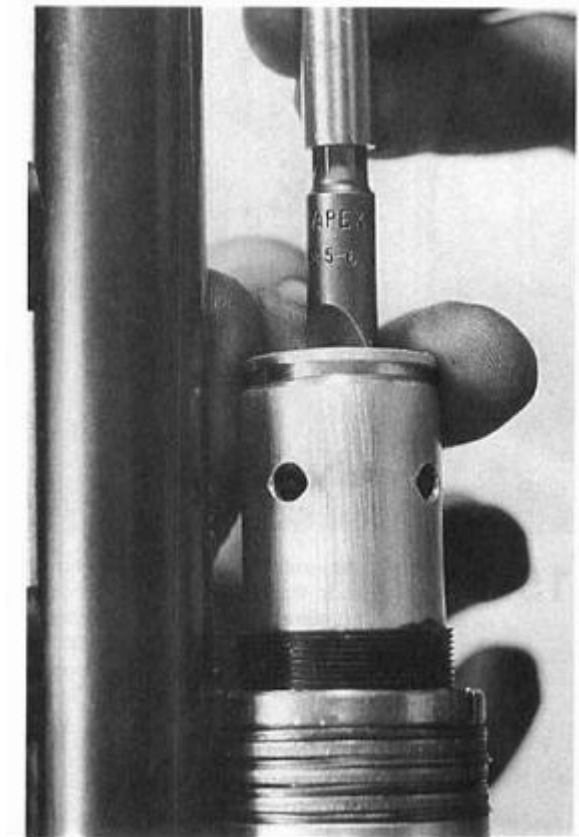




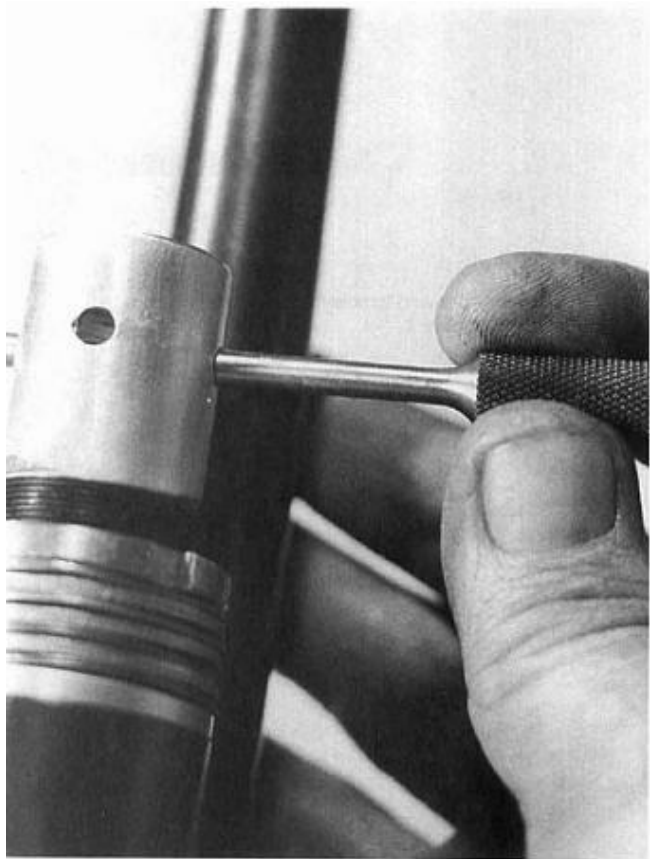
- 17.** Remove the large screw at the front of the forend cap, and take off the cap toward the front. Remove the forend

toward the front.



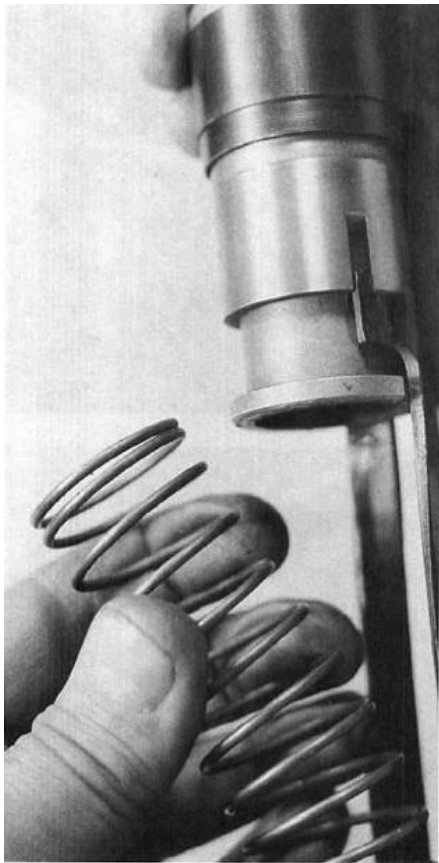


**18.** Use a large screwdriver to unscrew the magazine end cap. Caution: The magazine spring is under tension. Control it and ease it out. Remove the magazine spring and follower toward the front.

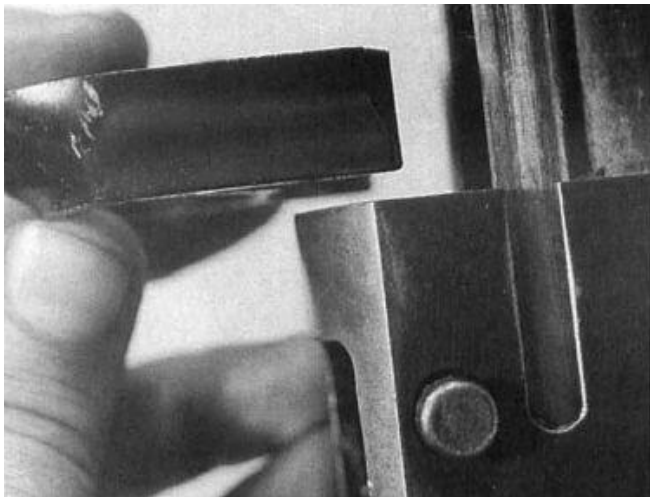


**19.** Insert a large diameter drift punch through the holes in the end of the magazine tube, and unscrew the tube from the receiver, counter-clockwise (front view).

**20.** As soon as the tube clears its threads at the rear, pull it out toward the front, while holding onto the recoil spring. When the tube is out, the spring is easily detached and removed.

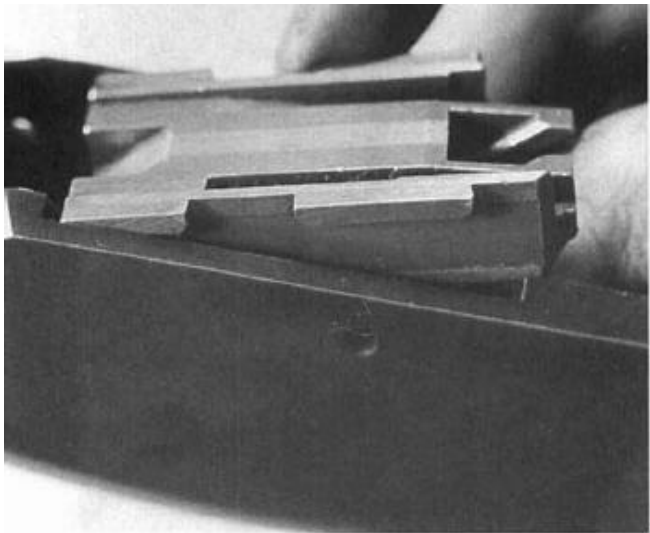




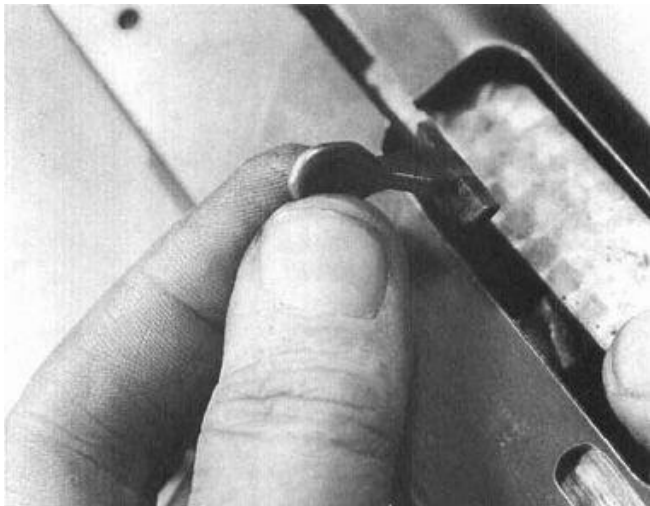


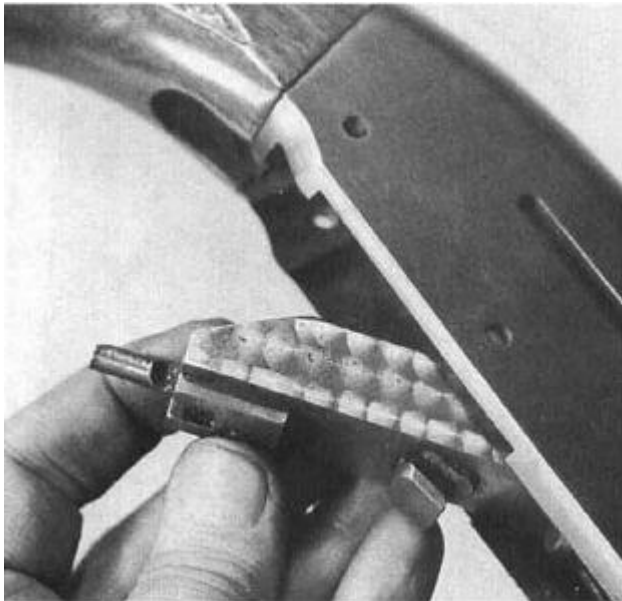
**21.** With the piston in the forward position, squeeze the connecting bars together slightly, and remove the forend base downward.

**22.** Move the bolt to the rear until the locking slide aligns with the exit cuts in the receiver, and lift the front of the slide, to free it from the locking block. Remove the slide from the bottom of the receiver. Pressing the bolt toward the rear will make this operation easier..

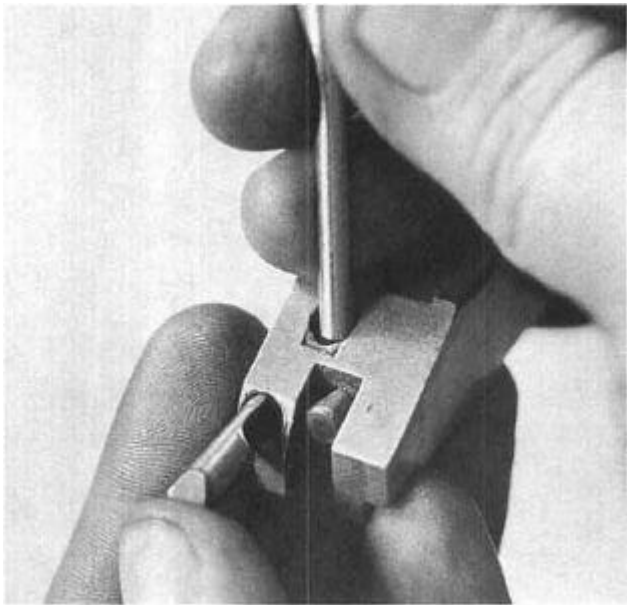


**23.** Move the operating handle forward to the ejection port and remove it.





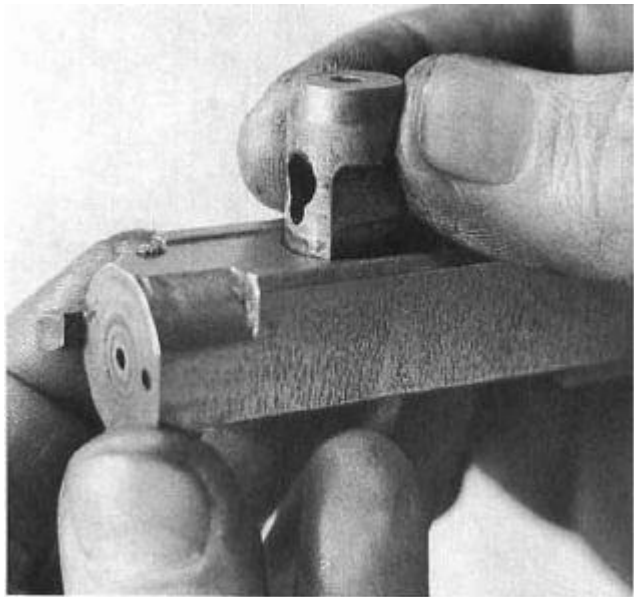
**24.** Move the bolt back toward the rear, and remove it.



**25.** A single large vertical pin in the bolt retains the ejector and its spring, and the firing pin and its return spring. Drift the

retaining pin out downward, and remove the ejector, firing pin, and their springs toward the rear.

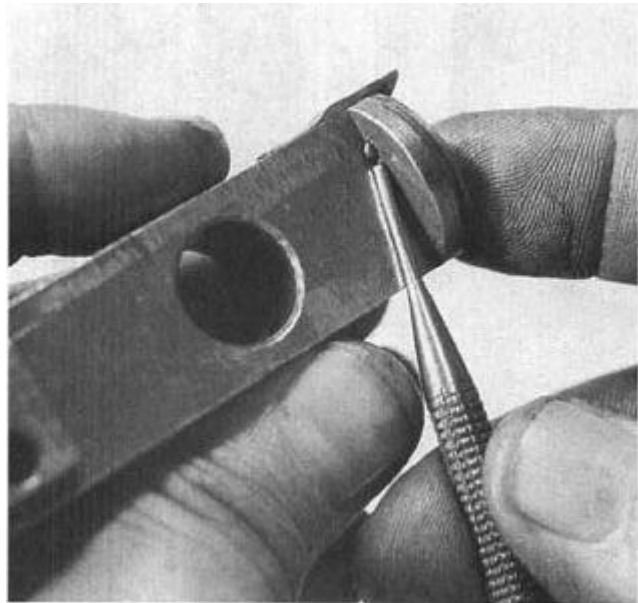
**26.** Removal of the firing pin will free the locking block to be taken out upward.



**27.** The extractor is retained by a vertical pin that must be driven out upward. Only a portion of the pin is accessible

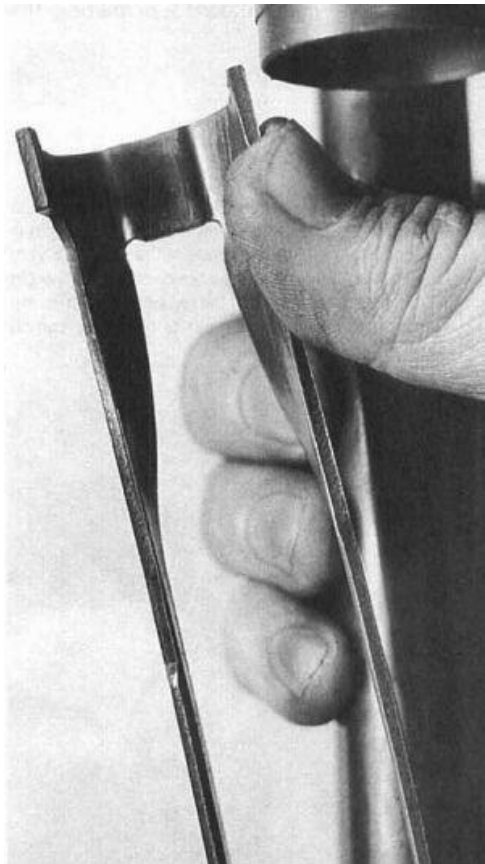


on the underside of the bolt, so a very small drift punch must be used to start it. The pin can then be removed at the top with smooth-jawed pliers, and the extractor and its coil spring can be taken off toward the right.





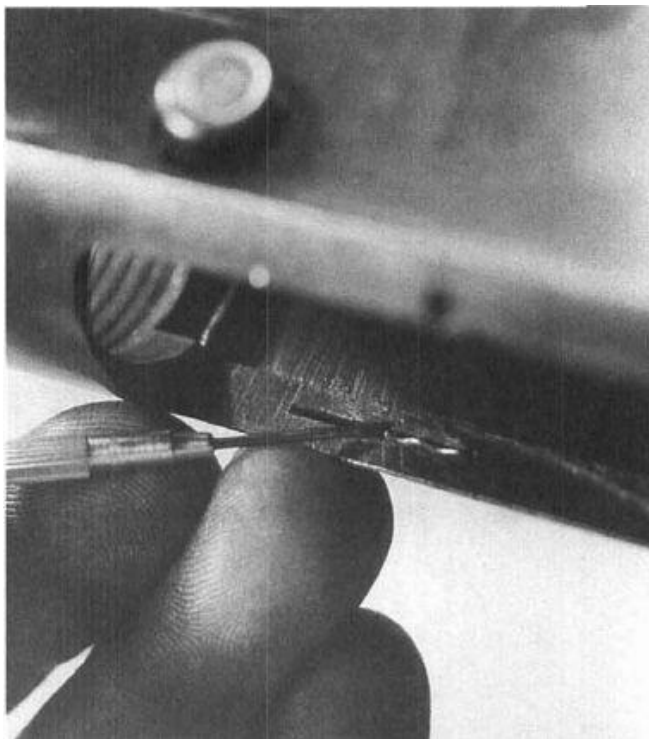
**28.** Tip the rear end of the gas piston outward, away from the barrel, and it will disengage from the connector bars for removal.

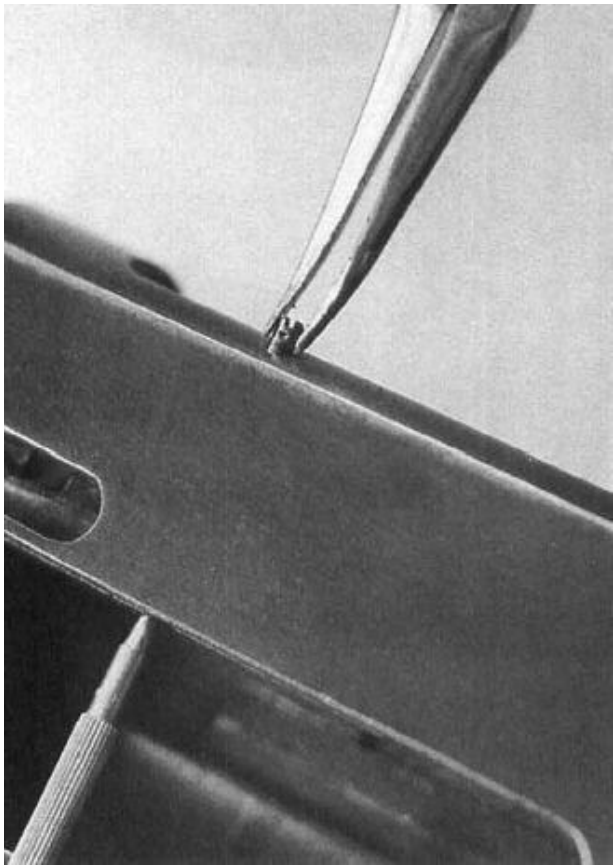


**29.** The connector bar unit can be sprung toward the i side to clear the barrel loop, and is then pulled out toward the front. In normal disassembly, this unit is best left in place.

**30.** The shell stop and carrier latch are retained in the sides of the receiver by vertical pins, and the pins are held in place by spring clips set in narrow slots inside the lower edge of the receiver. Use a small tool to slide the spring clips off toward the rear, as

shown.



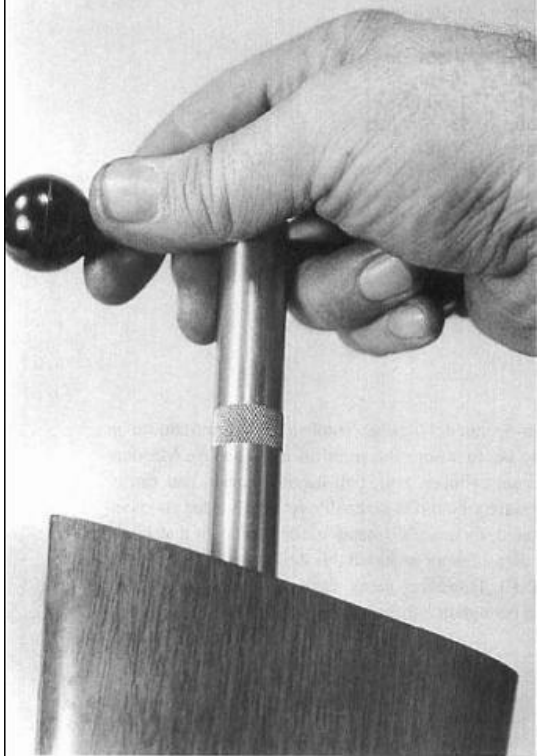




**31.** Holes are provided at the top, inside, to allow the pins to be nudged downward for removal. The hole on the right side is accessible through the ejection port with a straight tool, but the one on the left will require a curved or L-shaped tool. When the pins are out, the shell stop, carrier latch, and their springs are taken out inward.

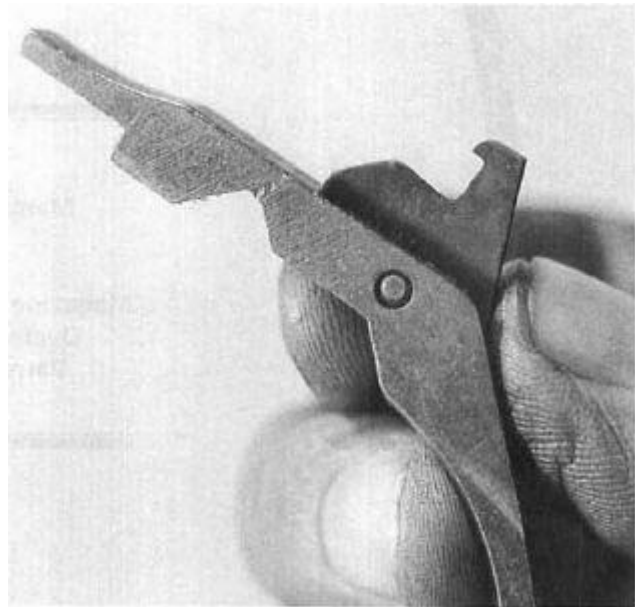
**32.** Remove the buttplate, and use a B-Square stock tool or a long-shanked screwdriver to

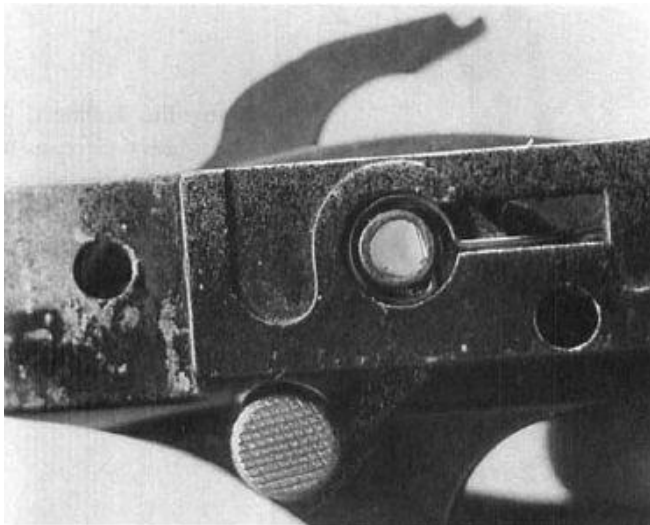
back out the stock mounting bolt. Take off the bolt, its washers, and the buttstock toward the rear.



# Reassembly Tips:

1. When replacing the trigger assembly, use a slave pin to hold the parts in place while inserting the cross pin.





2. When properly installed, the carrier actuator spring will be as shown.

When replacing the bolt and bolt slide, remember that the operating handle must be put in before the slide is lowered into position. Be sure that all of these parts are properly aligned before installing the slide.

# **Ithaca Mag 10**





**Data:** Ithaca Mag 10

**Origin:** United States

**Manufacturer:** Ithaca Gun  
Company, Ithaca,  
New York

**Gauges:** 10 only

**Magazine  
capacity:** 2 rounds

**Overall  
length:** 53-1/2 inches

**Barrel length:** 32 inches

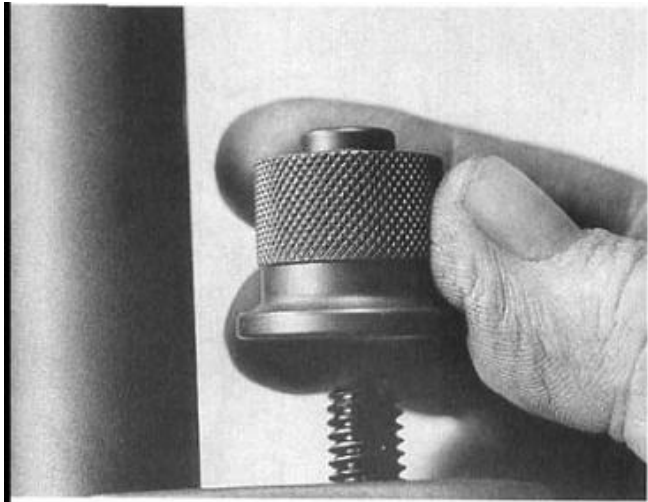
**Weight:** 11-1/4 pounds

Designed by Jim Tollinger, this gas-operated 10-gauge autoloader was introduced in 1975. It is a heavy piece, as it has to be, to absorb the recoil of the 10-gauge Magnum shell. A number of the parts-the piston, cylinder, bolt, bolt handle, carrier, and carrier latch-are made of stainless steel. The safety button is reversible for left-handed shooters. While it's not unnecessarily complicated, there are elements in the takedown that might be difficult for the amateur. In 1989, Remington purchased this design, and it is made by them as the Remington Model SP-10. However,

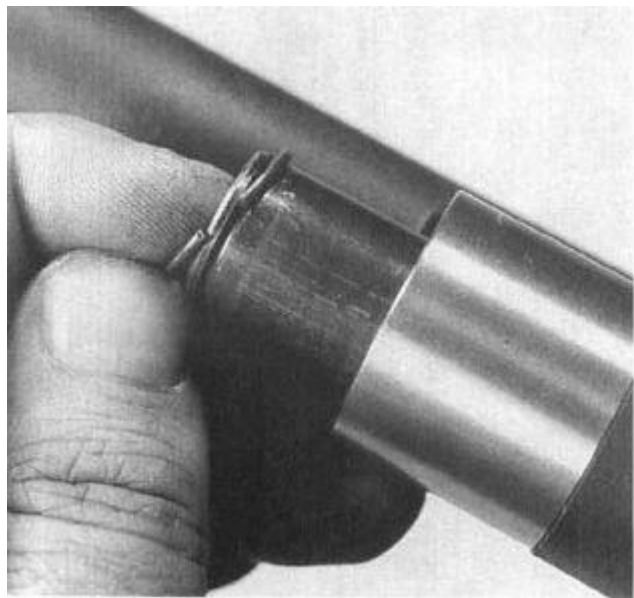
many design elements have been changed and the takedown is different enough that these instructions will not apply.

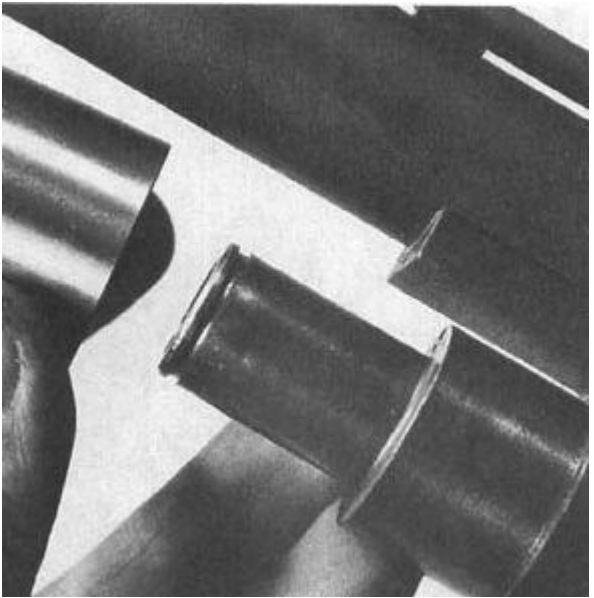
## **Disassembly:**

- 1.** Pull back the bolt handle to lock the bolt in the open position, and set the safety in on-safe position. Unscrew and remove the knob at the front of the forend, and take off the forend and barrel toward the front.

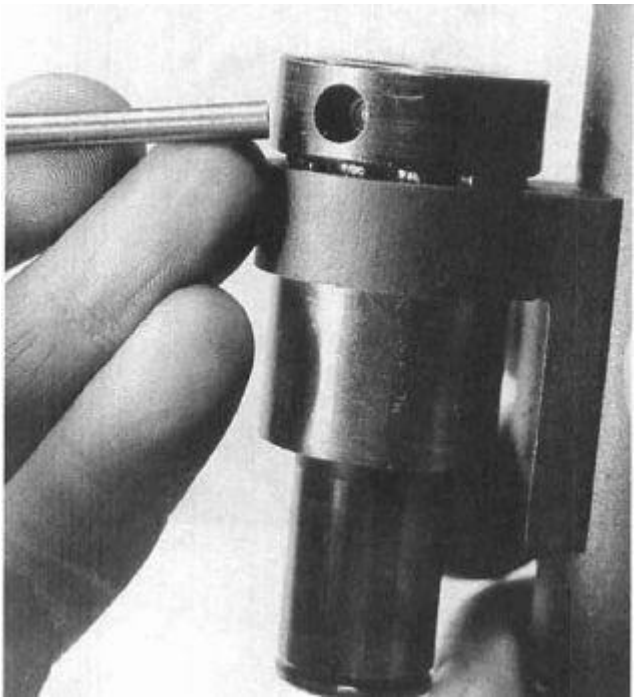


2. The gas piston assembly is mounted in the under-loop of the barrel. Spring the retaining ring from its groove at the rear of the assembly, and take it off.





**3.** Remove the gas piston toward the rear.



4. The piston cylinder is retained by a capstan nut at the front of

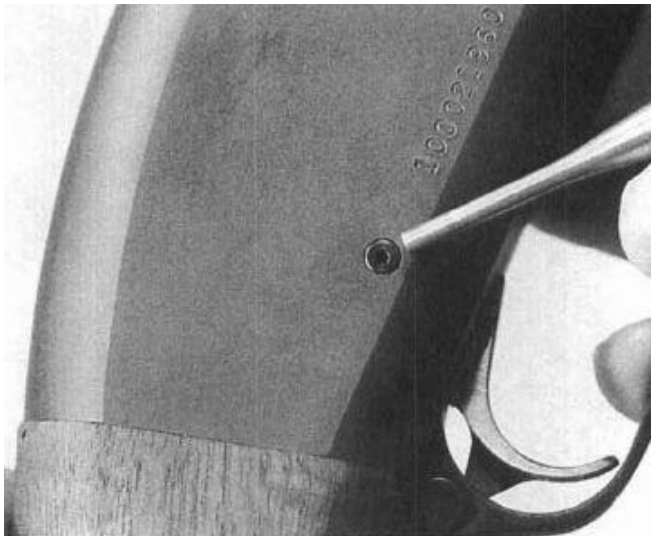


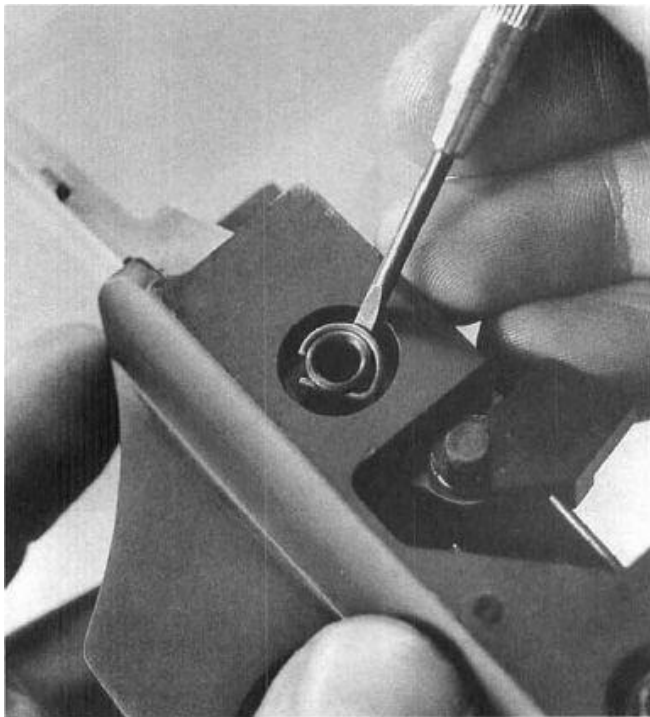
the mount, with a lock-washer behind the nut. Removal is not advisable in normal takedown.

- 5.** Slide the piston sleeve or action slide off the magazine tube toward the front.



6. Restrain the bolt, push the carrier latch, and ease the bolt forward to the closed position. Push out the two cross pins above the trigger housing toward either side, and remove the trigger housing downward.

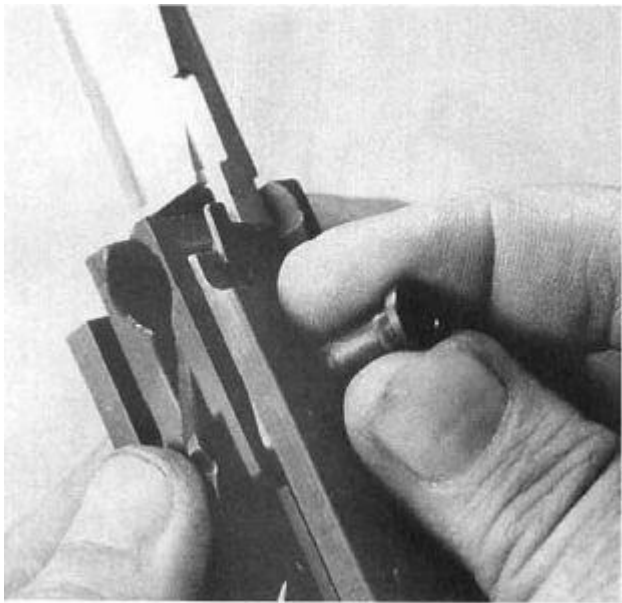




7. Remove the retaining clip from

the left end of the carrier pivot. A fingertip held over the clip during removal will prevent loss.

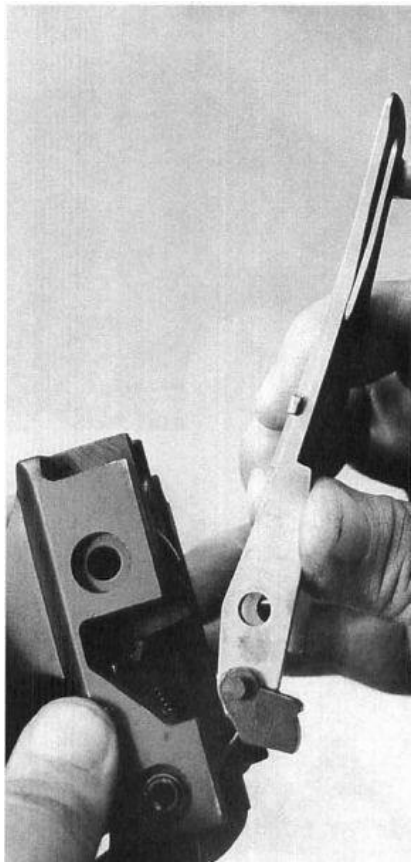
- 8.** Restrain the carrier, and push out the carrier pivot toward the right.

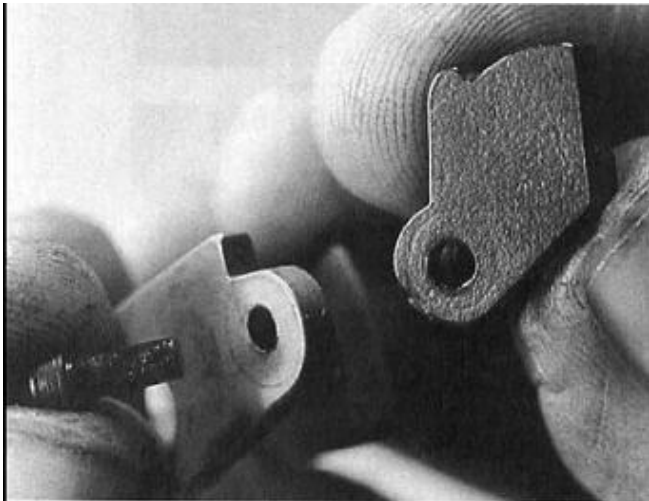


**9.** Move the carrier off upward and over toward the rear, slowly easing the tension of the carrier spring. Caution: Keep

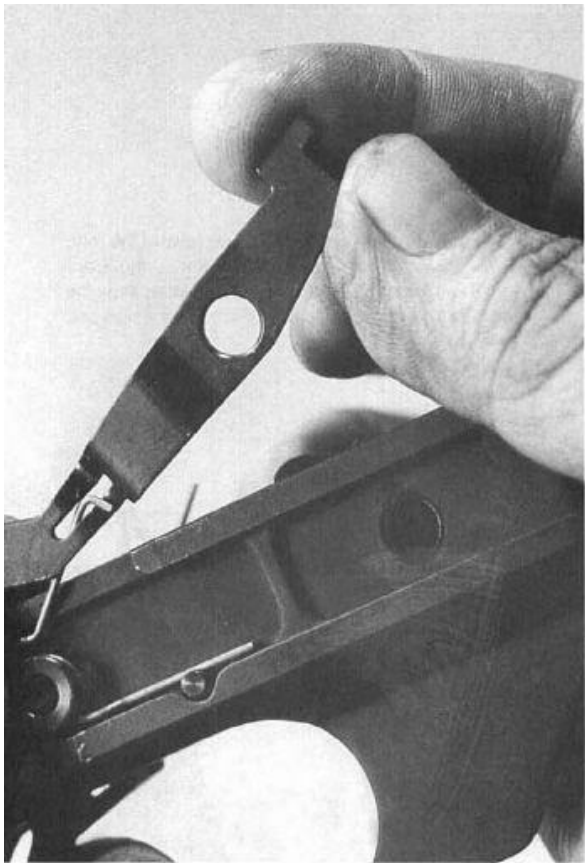
fingers clear of the rear of the carrier as the end of the carrier spring can cause injury if it slips out.







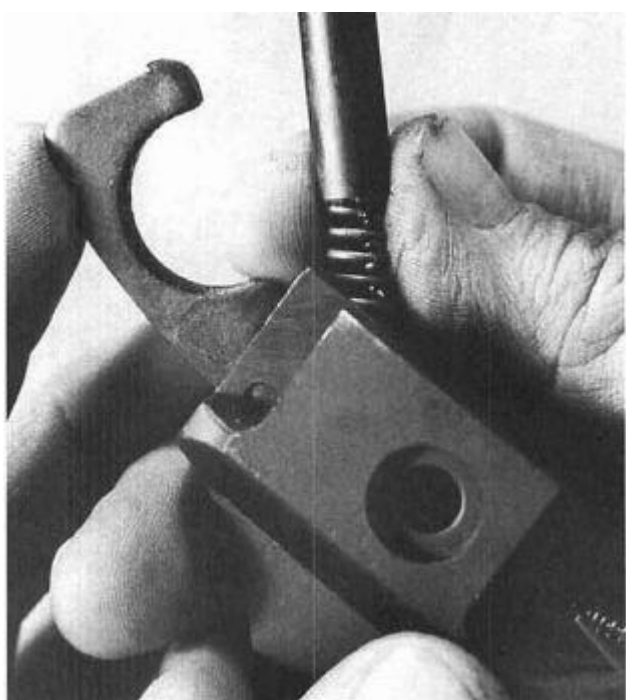
- 10.** The carrier dog is easily removable from the left rear wing of the carrier by taking out the cross pin toward the left.

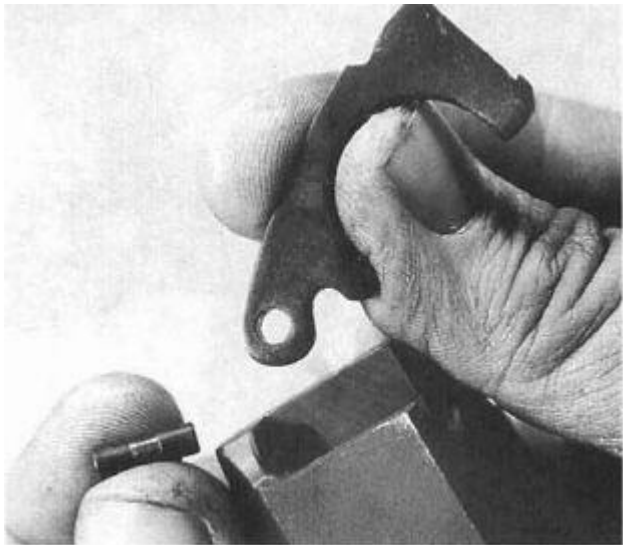


**11.** Move the carrier trip lever, located on the right side of the housing, toward the right and out from beneath its shelf. Caution: Allow the trip lever to swing upward, easing the tension of its spring, then disengage it from the spring and remove it.

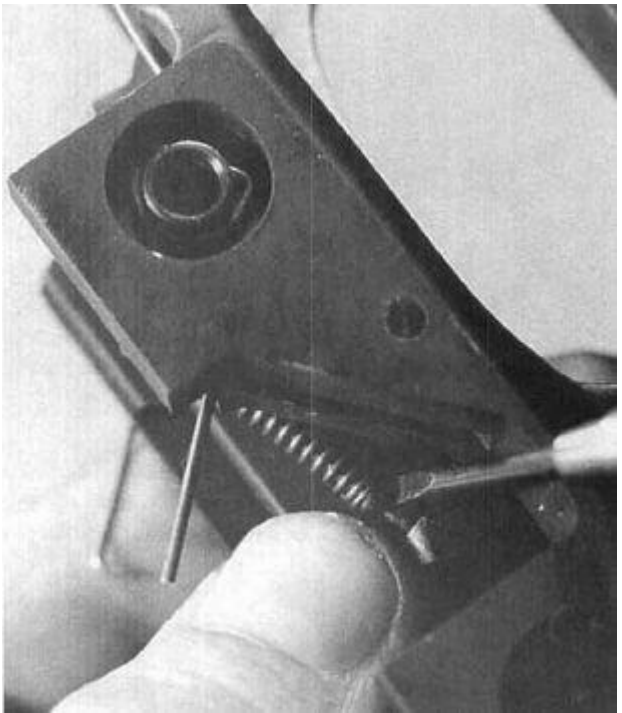
**12.** Move the safety to the off-safe position, restrain the hammer, pull the trigger, and ease the hammer down to the fired position. Caution: Restrain the hammer spring plunger. Allow

the hammer to swing over to the front, ease out the plunger and spring, and remove them upward and toward the front.





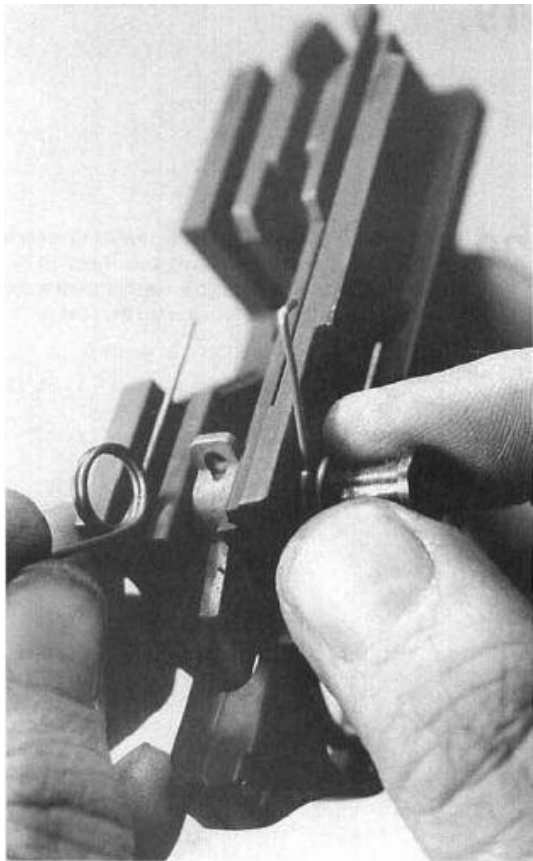
**13.** Push out the hammer cross pin,  
and remove the hammer.



**14.** Insert a small screwdriver to pry the tip of the sear spring

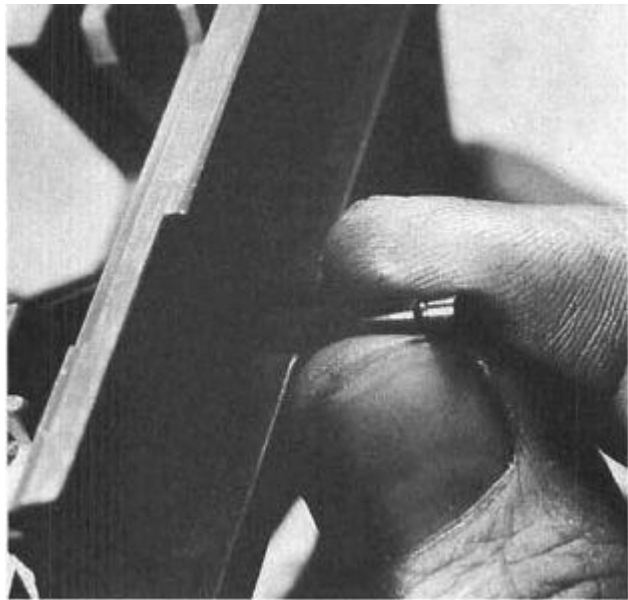


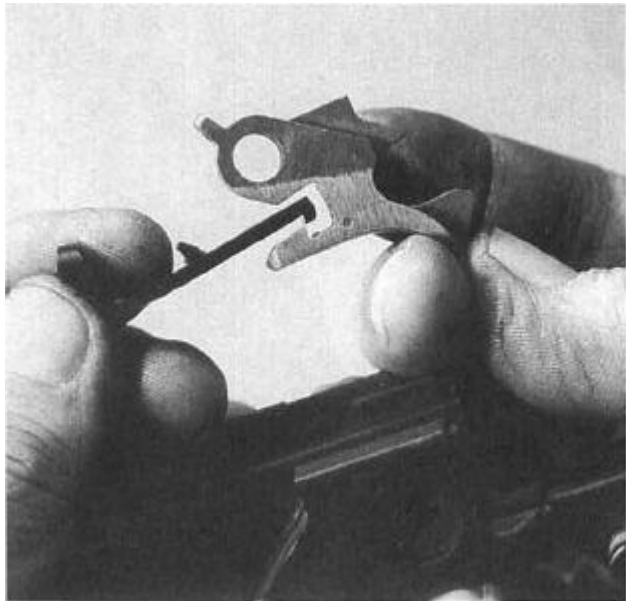
guide out of its recess in the back of the sear, moving it toward the left side of the housing. Hold a fingertip against the side of the spring and plunger to control it as it is released, and remove the unit toward the left.



**15.** Remove the spring clip from the left end of the rear cross pin sleeve, which is also the trigger pivot, and push out the pivot/sleeve toward the right. Note that the carrier spring will be released on the left for removal, and the carrier trip lever spring will be released on the right.

**16.** Removal of the carrier trip lever spring will release the sear cross pin for removal toward the right.



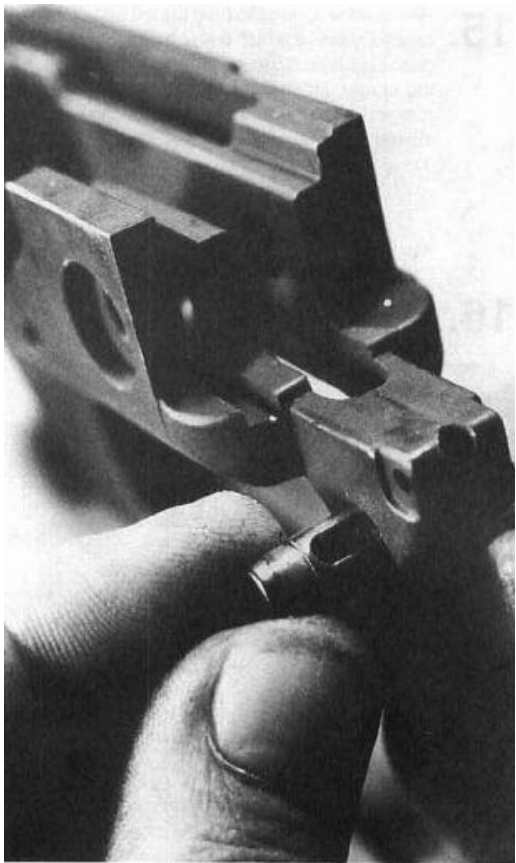


**17.** Remove the trigger and sear upward.



**18.** Push out the small cross pin at the extreme rear of the housing, holding a fingertip

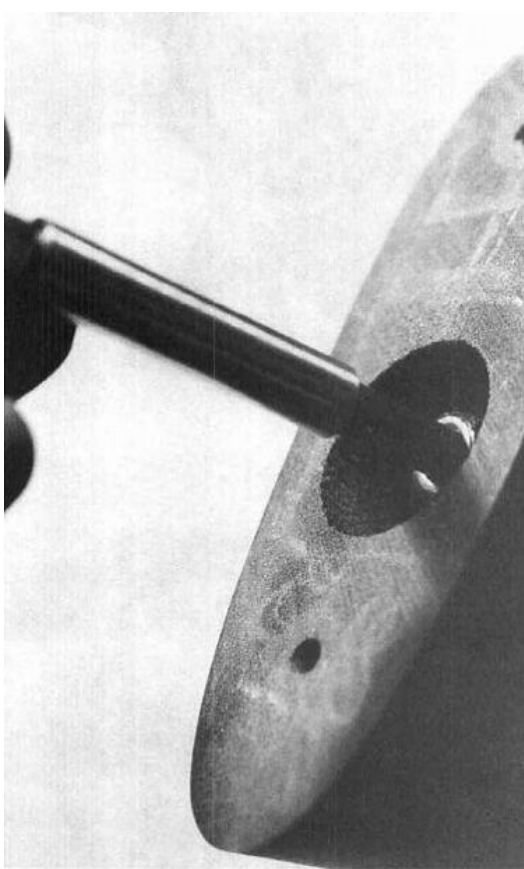
over the hole at the upper rear to arrest the safety detent spring. Remove the safety detent spring and plunger upward.

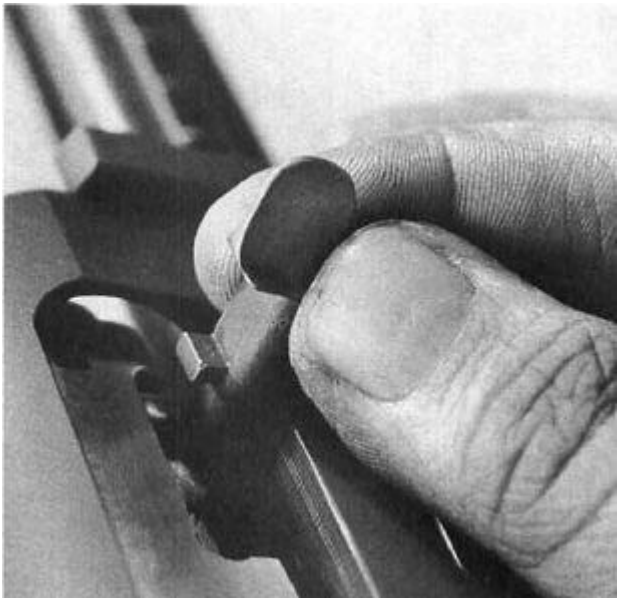




**19.** Remove the safety button toward either side.

**20.** Remove the buttplate, and use a large Allen wrench to back out the stock retaining bolt. Take off the bolt, lock washer, and spacer washer toward the rear. Remove the buttstock toward the rear.





**21.** Note that stock removal is not necessary for removal of the bolt and slide assembly. Move the bolt upward at the front of

the receiver, and take off the operating handle toward the right.



**22.** Insert a drift punch in the operating handle opening in the action slide, and move the bolt and slide assembly to the rear of the receiver. Keep the parts under control, as the powerful recoil spring is compressed. Keep a particularly firm grip on the slide piece. Align the bolt slide with the trigger group opening at the rear of the receiver, and lift the front of the bolt slide away from the bolt, removing the drift punch from the slide.

**23.** Turn the bolt slide piece until it is straight out the bottom of the receiver, and remove the bolt toward the front. Caution: Take care that the bolt slide and its connected rods are not released, as the spring is quite powerful, and is compressed.

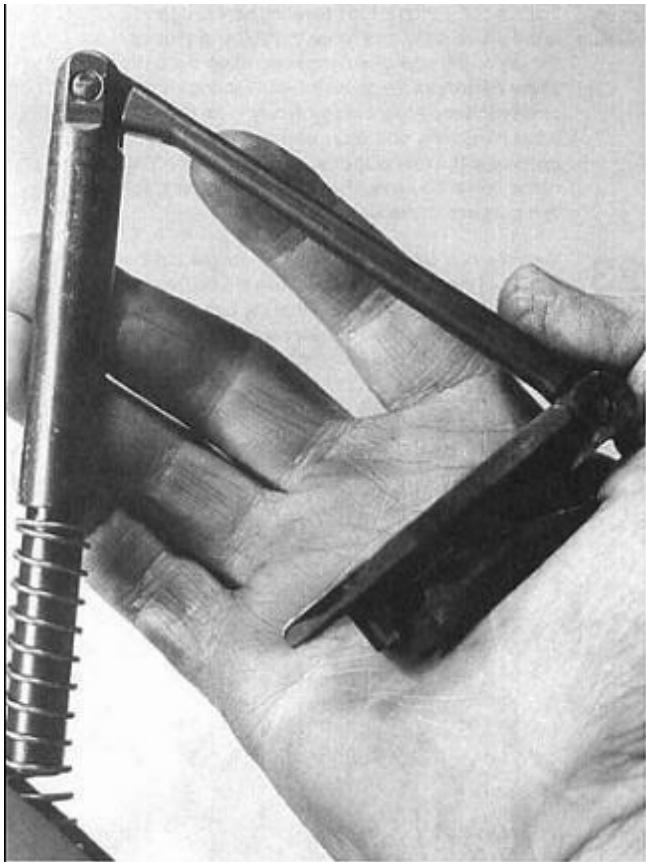






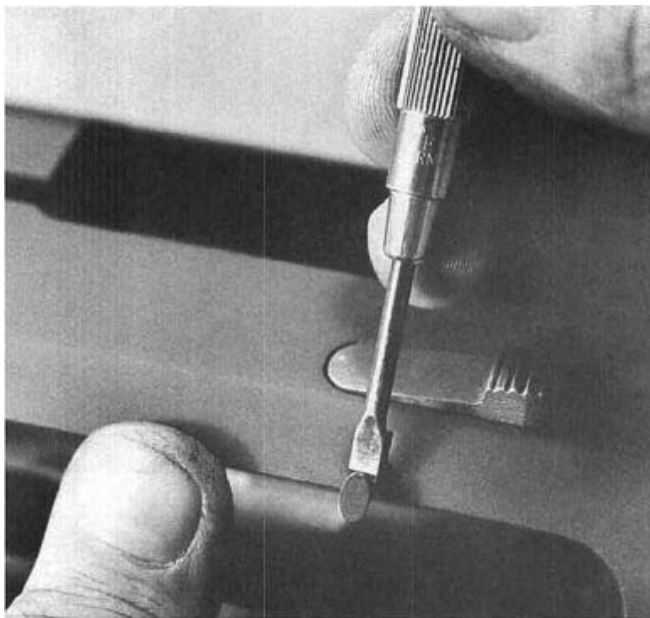
**24.** Slowly ease the bolt slide forward, releasing the spring tension. As the link rod emerges from the spring tunnel, move the slide piece out the bottom of the receiver.

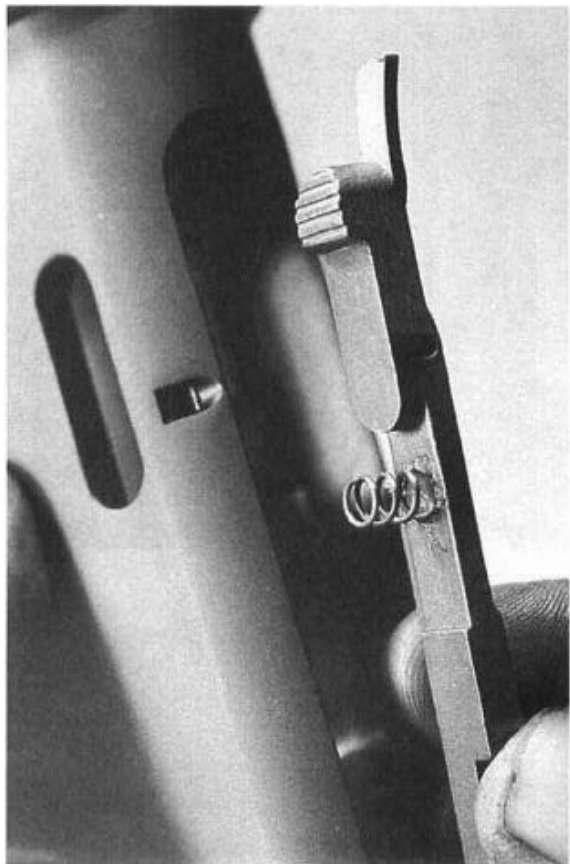




**25.** Remove the bolt slide and the connected link rod and follower, along with the spring, from the bottom of the receiver. These components can be separated by drifting out the cross pins, but this is not advisable in normal takedown.

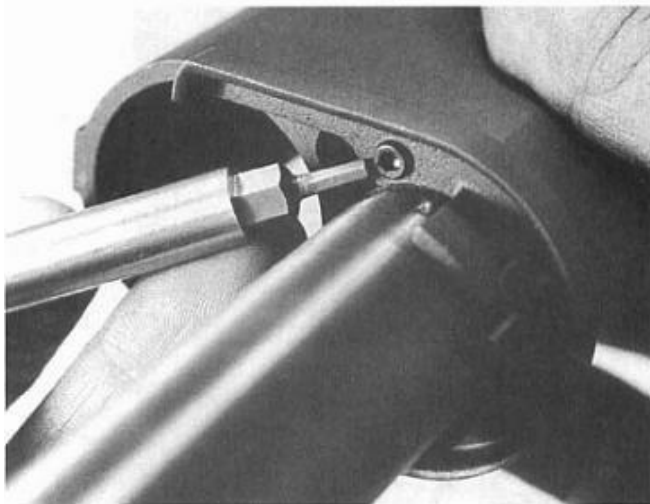
**26.** The carrier latch is retained on the right side by a vertical pin which is held in place by a spring detent. The pin is simply pulled downward for removal.





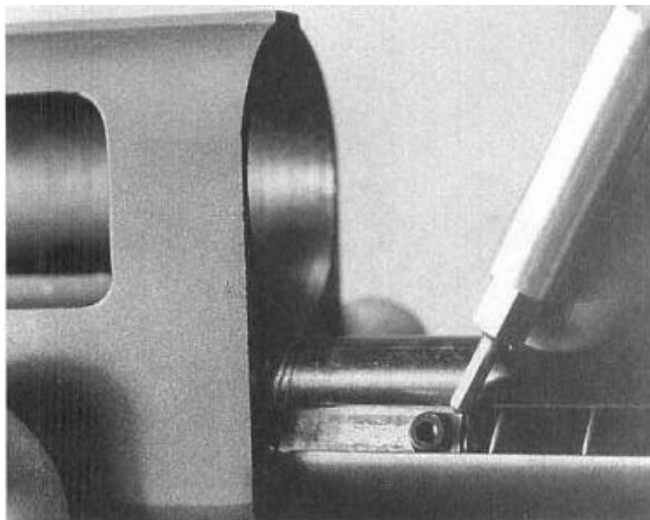
**27.** Remove the carrier latch and its attached spring inward, then out the bottom of the receiver.

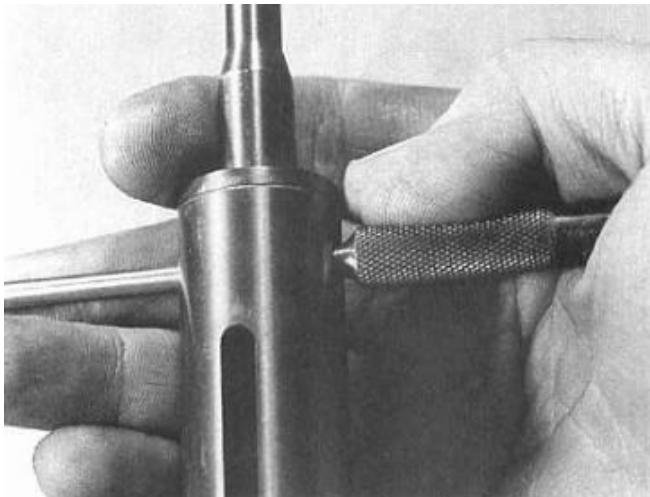
**28.** Remove the two Allen screws at the front of the receiver, inside the forend base, and take off the base toward the front.



**29.** The magazine follower is retained by an Allen screw on the right side. Restrain the follower, remove the screw, and take out the follower and spring toward the rear.

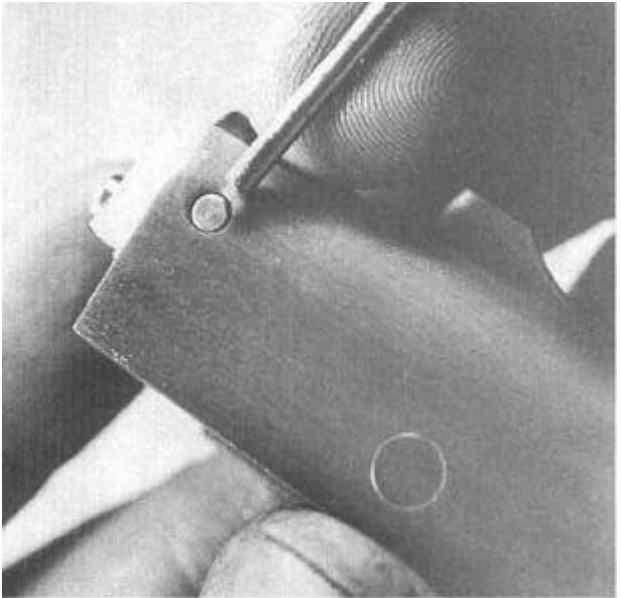






**30.** The magazine tube can be unscrewed from the receiver by inserting a drift punch through the cross-hole at the front, but this should be done only for repair purposes. In

normal takedown it is best left  
in place.

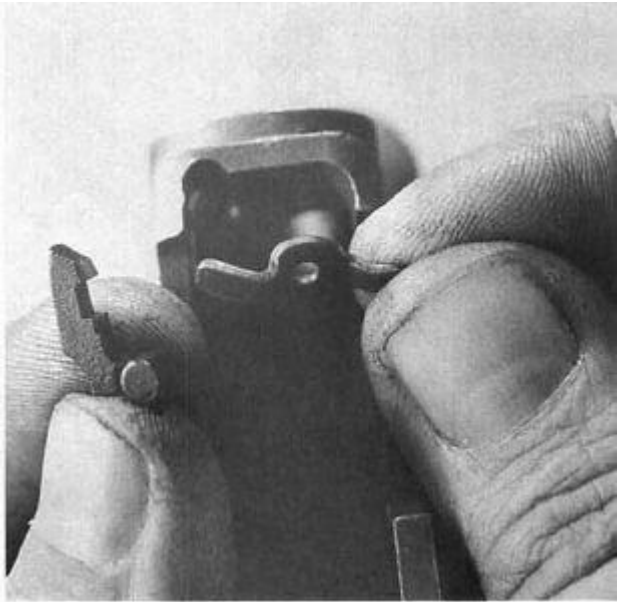


**31.** The firing pin and buffer at the

rear of the bolt are retained by a cross pin which must be drifted out toward the left. Caution: The firing pin has a very strong return spring, so restrain it when the pin is drifted out. Remove the firing pin and its spring toward the rear, and the buffer, if necessary.

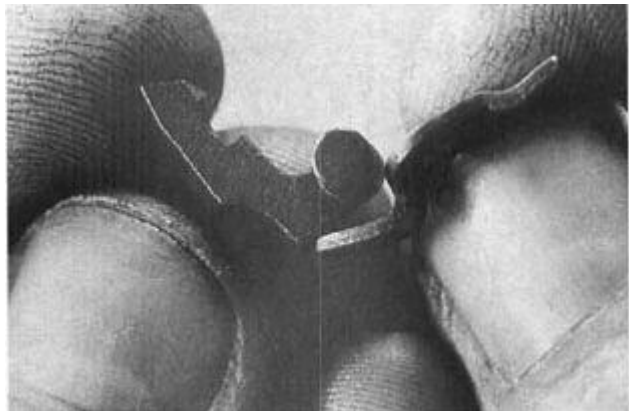
**32.** Removal of the firing pin assembly toward the rear will release the extractor lever, inside the bolt at the front, and this can now be taken out. The extractor is then moved

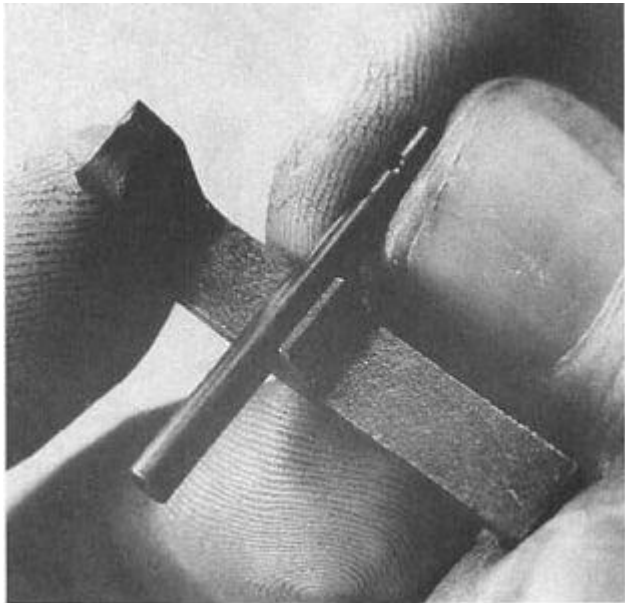
inward, and is removed from  
inside the bolt.



**Reassembly Tips:**

1. When replacing the extractor system, note that the most acutely curved arm of the extractor lever is the one that contacts the extractor. When in place in the bolt, the arrangement is as shown. When the extractor and lever are in place, insert a small screwdriver from the right to hold the system in place while the firing pin assembly is installed.

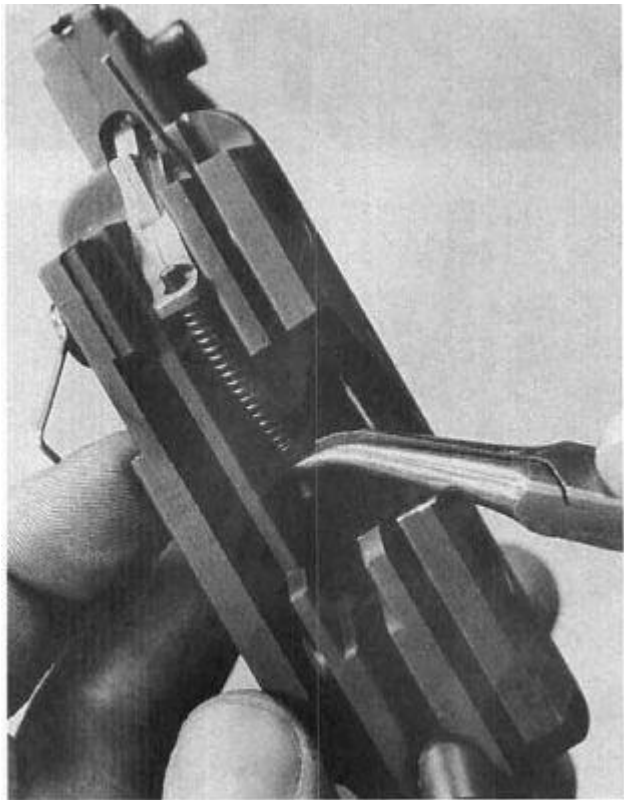




2. When replacing the sear in the trigger housing, be sure that the top central lug on the sear is behind the cross pin, as



shown. Also, note that the cross pin has a recess at one end to accept the tip of the carrier trip lever spring, and this end must be on the right side.



3. When replacing the combination sear and trigger spring, grip the front tip of its plunger with sharp-nosed pliers and guide the tip into place on the back of the sear, as shown.

When replacing the trigger group in the receiver, it is necessary to depress the carrier latch, to clear the trip lever on the housing.

# **Ithaca Model 37**



## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Ithaca Model 37 also apply to the following gun:

### **Ithaca Model 87**

<b>Data:</b>	Ithaca Model 37
<b>Origin:</b>	United States
<b>Manufacturer:</b>	Ithaca Gun Company, Ithaca, New York
<b>Gauges:</b>	12,16, and 20
<b>Magazine</b>	

<b>capacity:</b>	4 rounds
<b>Overall length:</b>	45 inches (with 26-inch barrel)
<b>Barrel length:</b>	26 to 30 inches
<b>Weight:</b>	5-3/4 to 6-1/2 pounds

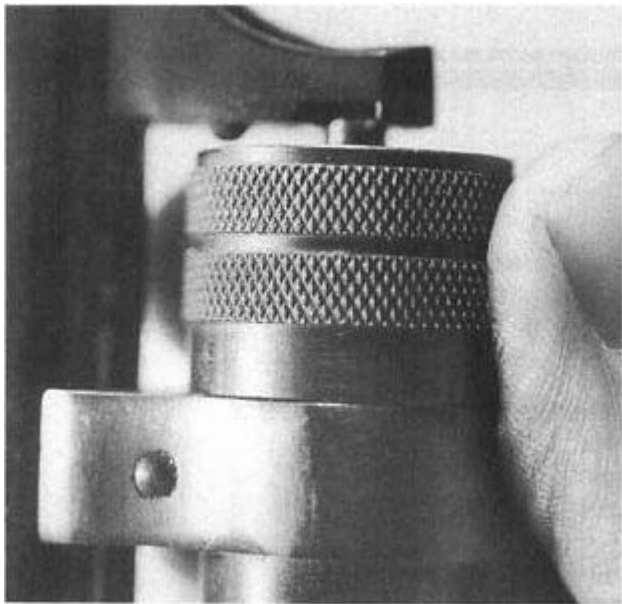
The model designation is the same as the year of its introduction, and this gun has a mechanism that is totally unlike all other slide-action shotguns made today.

Its completely closed receiver and bottom ejection make it ideal for use in bad weather, and these same features make it ideal for the left-handed shooter. A left-handed safety is also available. The Model 37 is a simple gun with a minimum of parts, and takedown and reassembly are quite easy, even for the amateur. In 1987, the reorganized Ithaca Acquisition Co. changed the designation to Model 87, but there were no major mechanical changes, and the instructions will apply.

## **Disassembly:**



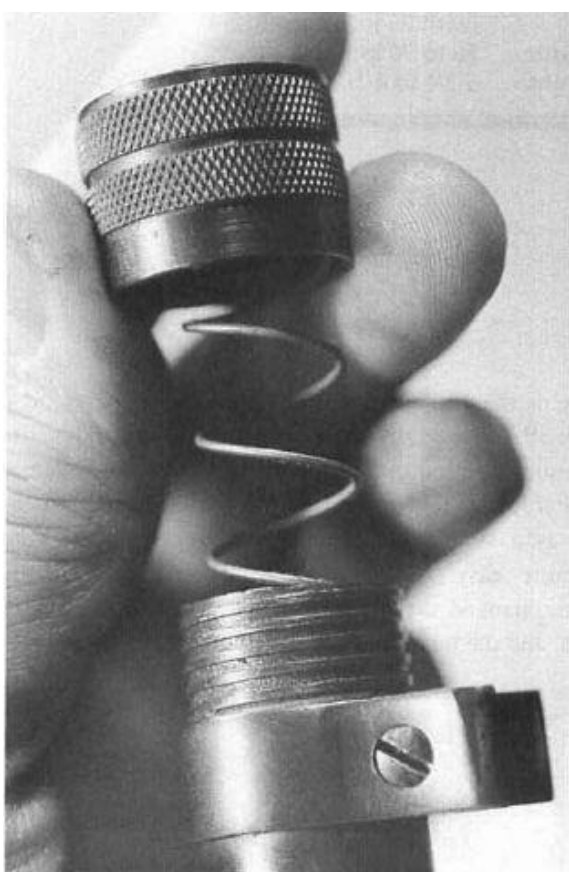
1. Operate the slide latch and open the action. Set the safety in the on-safe position, and turn the magazine end cap clockwise (front view) until it stops. Note that on early guns, made before 1954, there is a pull-out pin in the end cap for added leverage.



2. Rotate the barrel one-quarter turn counter-clockwise (front view), and remove the barrel toward the front.

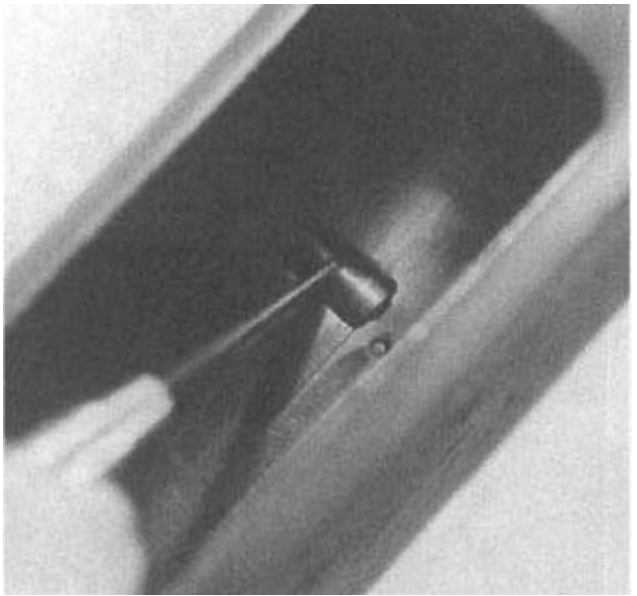






3. After the barrel is removed, the magazine end cap can be unscrewed and taken off. Caution: The magazine spring will be released as the end cap is removed, so control it and ease it out. Take out the spring and follower toward the front. Removal of the cross screw in the magazine yoke will allow it to be moved off the end of the magazine tube.
4. Move the bolt forward to the closed position, and insert a small screwdriver through the

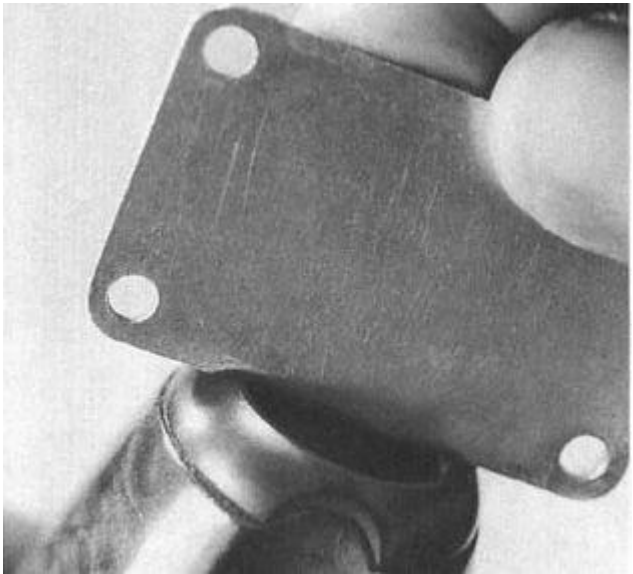
loading port on the underside of the receiver, engaging its blade in the groove in the slide bar pin, located on the underside of the slide piece. Move the pin toward the right, and take off the forend and action slide assembly toward the front.

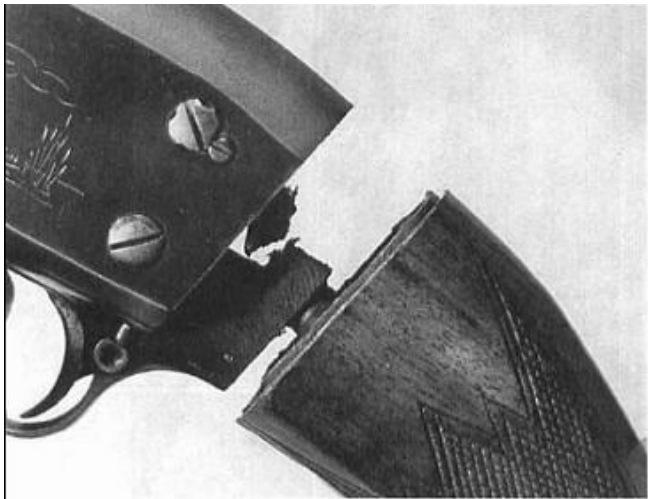


5. With a small steel plate of proper dimensions, unscrew the forend cap nut, and remove the action slide tube and bar

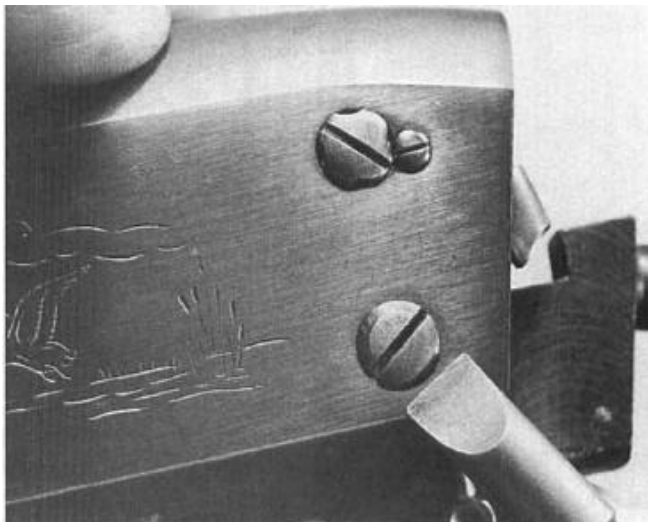


assembly toward the rear.





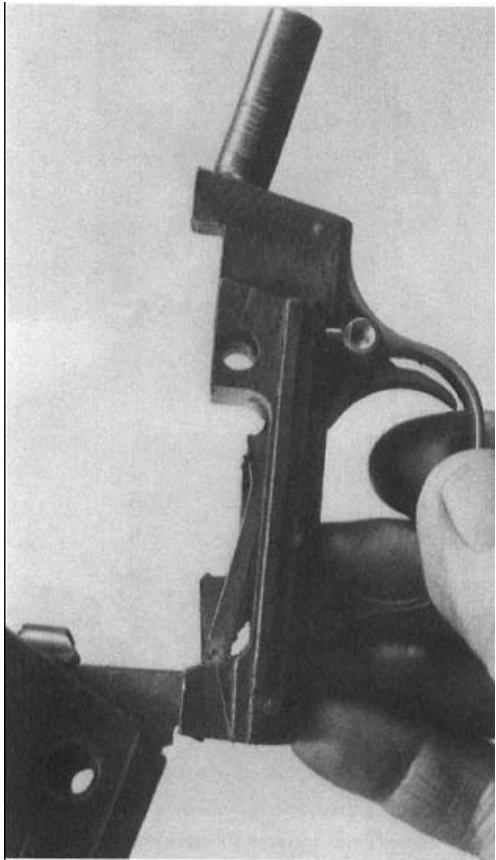
6. Remove the buttplate, and use a B-Square stock tool or a long-shanked screwdriver to back out the stock bolt. Take off the bolt, its washers, and the buttstock toward the rear.



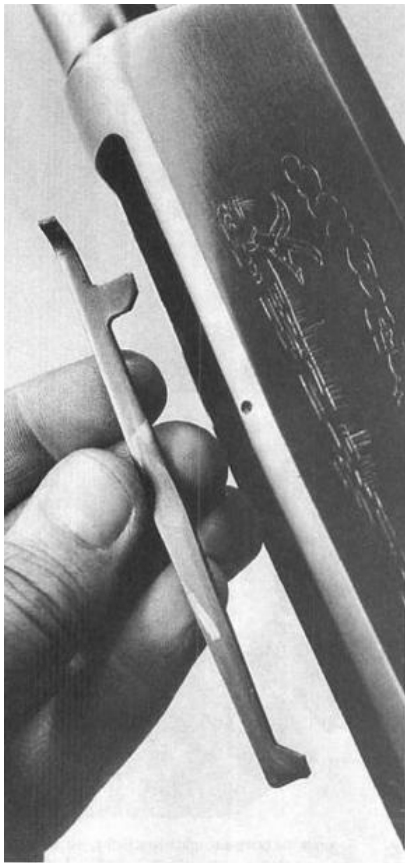
**7.** Remove the large cross screw at the lower rear of the receiver.

**8.** Release the safety, and pull the

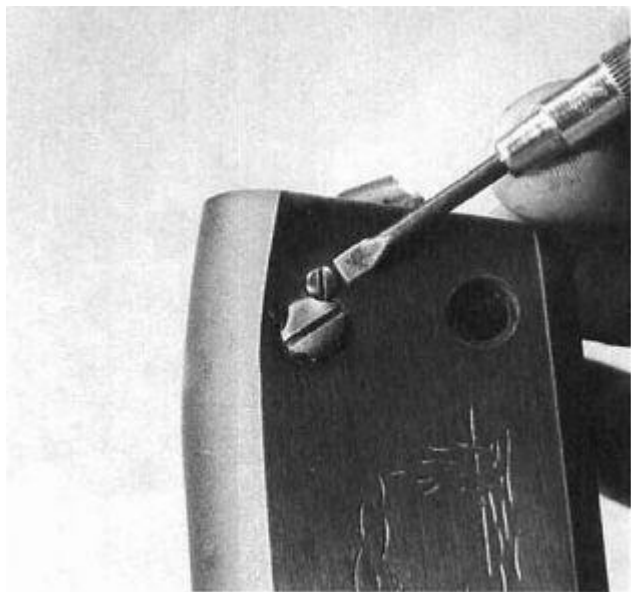
trigger to drop the hammer to the fired position. Slide the trigger housing toward the rear until its side rails clear, then move it downward for removal.



9. As the trigger housing is removed, the right shell stop will be released inside the receiver, and can be taken out downward.

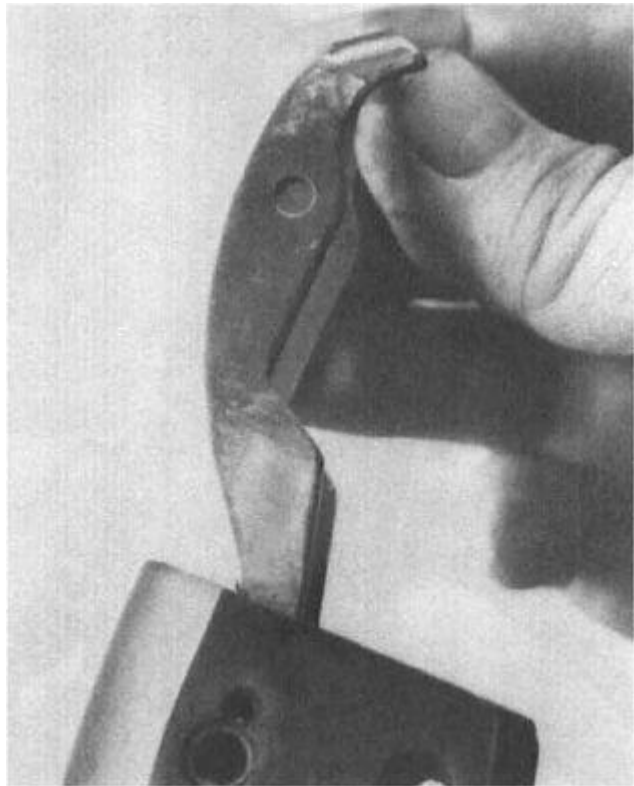


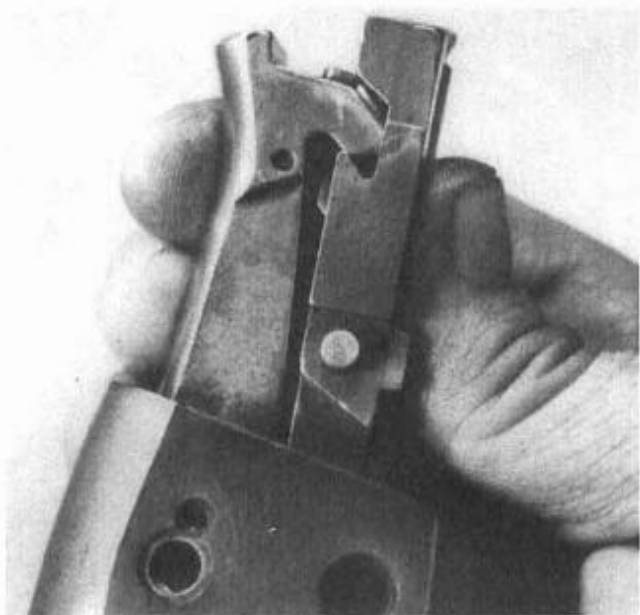
**10.** Remove the lock screw and the main carrier pivot screw on each side of the receiver.



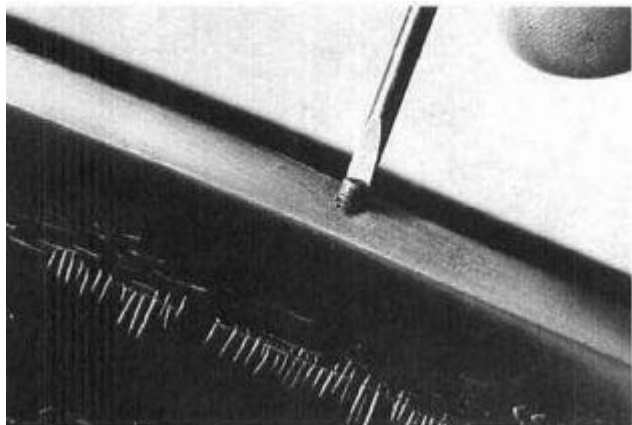


- 11.** Move the bolt assembly to the rear, and remove the carrier from the rear of the receiver.





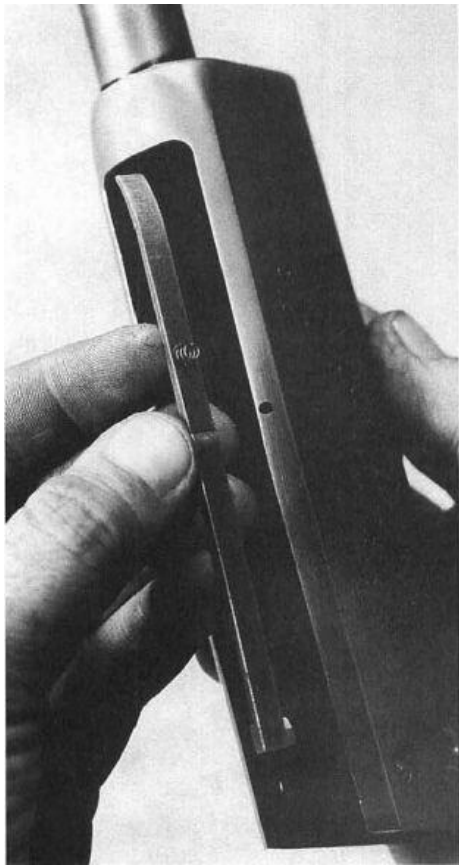
**12.** Remove the bolt and slide piece toward the rear



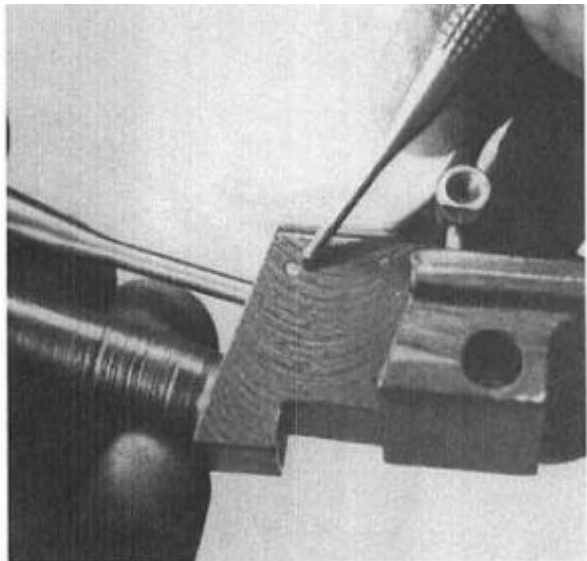
**13.** The left shell stop is retained inside the left wall of the receiver by a small vertical screw. Back out the screw downward.

**14.** Remove the left shell stop and

its coil spring from inside the receiver.



**15.** With the hammer in the fired position, insert a tool at the lower rear of the trigger housing to slightly depress and restrain the hammer spring cap, and push out the retaining cross pin toward the right. Caution: The spring is powerful, and under tension even when at rest, so control the spring cap and ease it out.

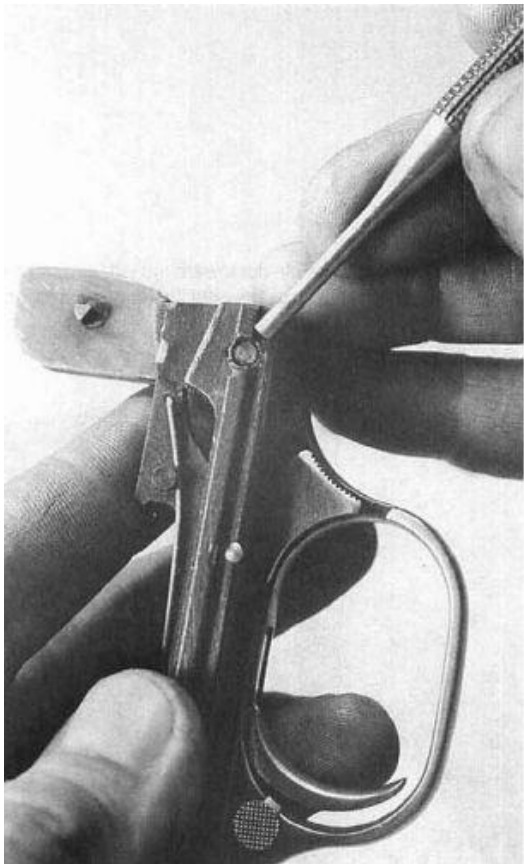




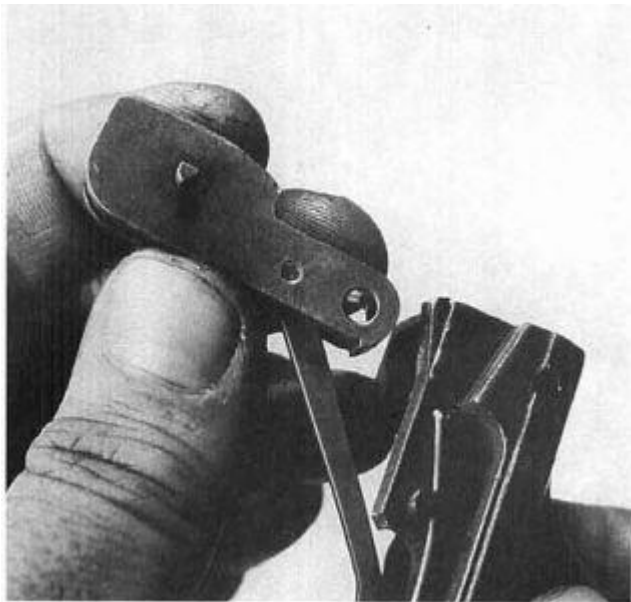


**16.** Remove the hammer spring

cap, spring, and follower  
toward the rear.



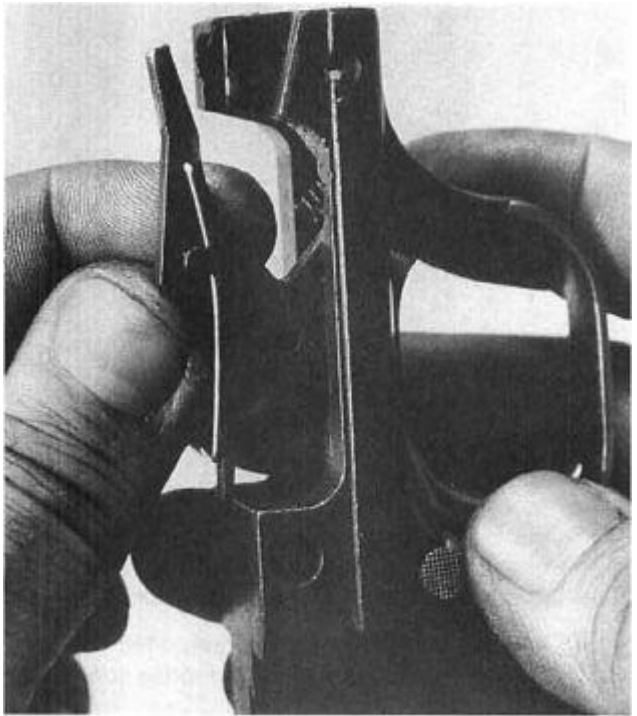
- 17.** Push out the hammer cross pin toward the left.
- 18.** Remove the hammer upward. If necessary, the hammer strut can be removed by drifting out its cross pin.





**19.** Push the trigger cross pin

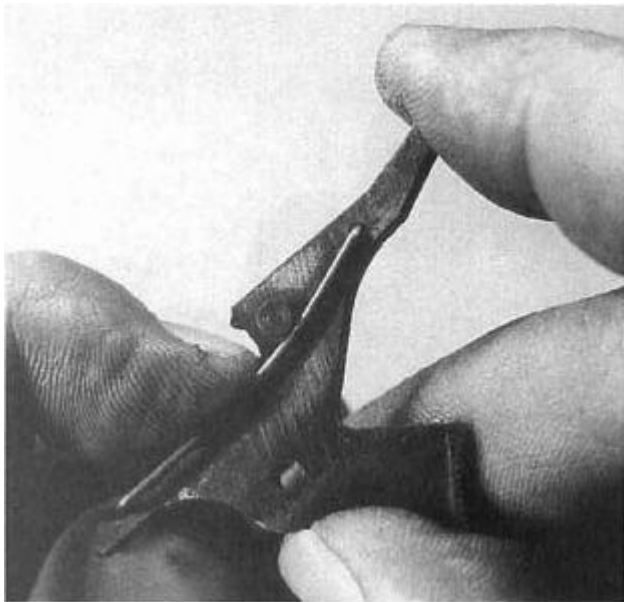
about half-way out toward the left.



**20.** Remove the slide latch upward and toward the rear, and take out the latch spring from its recess on the right side of the housing.

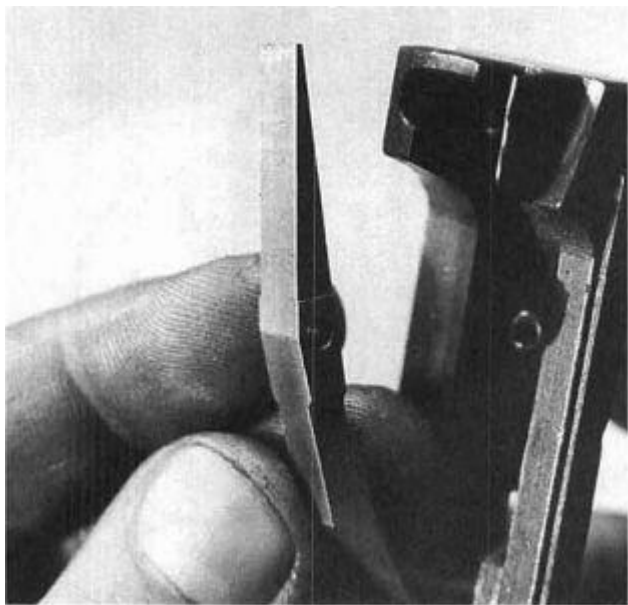
**21.** The slide latch release spring can be removed by flexing it slightly and snapping it off its post toward the right.

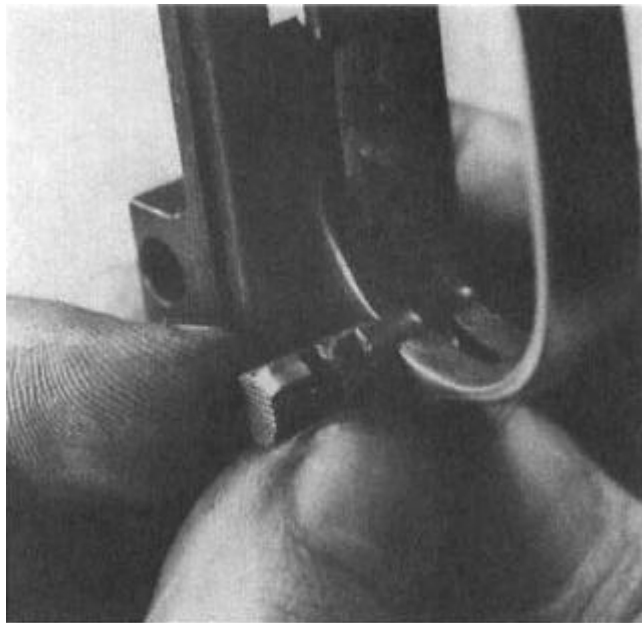




**22.** Drift the trigger pin out toward the left, and remove the trigger upward. Take out the trigger spring from its recess in the

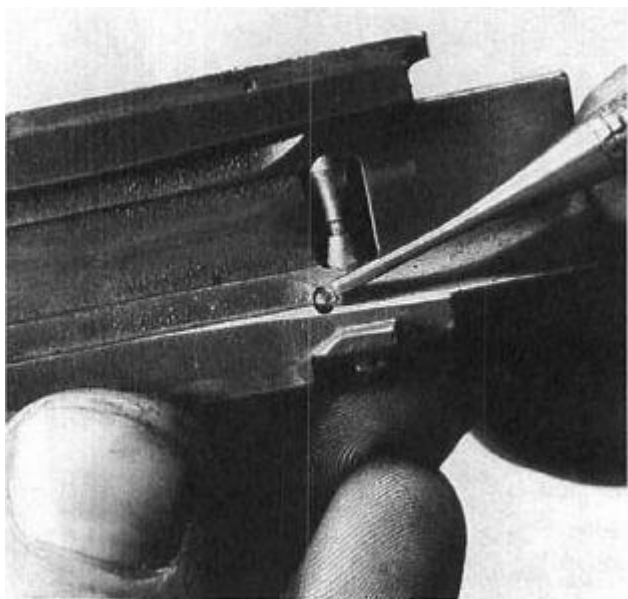
housing.





**23.** Push the safety button out toward the right, and remove the safety plunger and spring

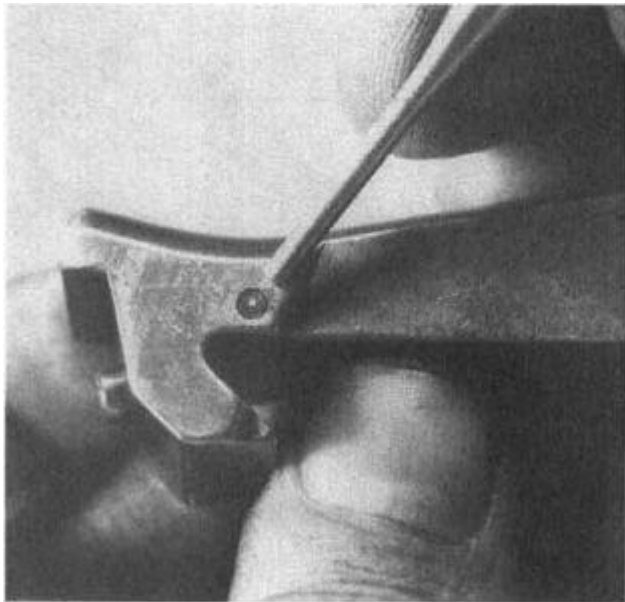
downward.



**24.** Detach the action slide piece from the bottom of the bolt.

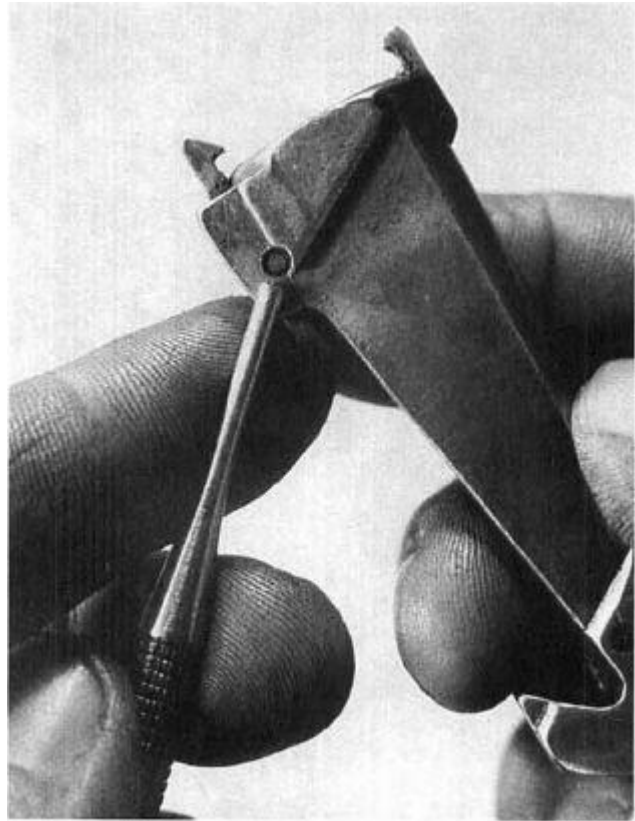
Drifting out the vertical pin in the slide piece will release the slide bar pin and its spring for removal toward the left.

- 25.** Drift out the cross pin at the rear of the bolt, and remove the firing pin and its return spring toward the rear.

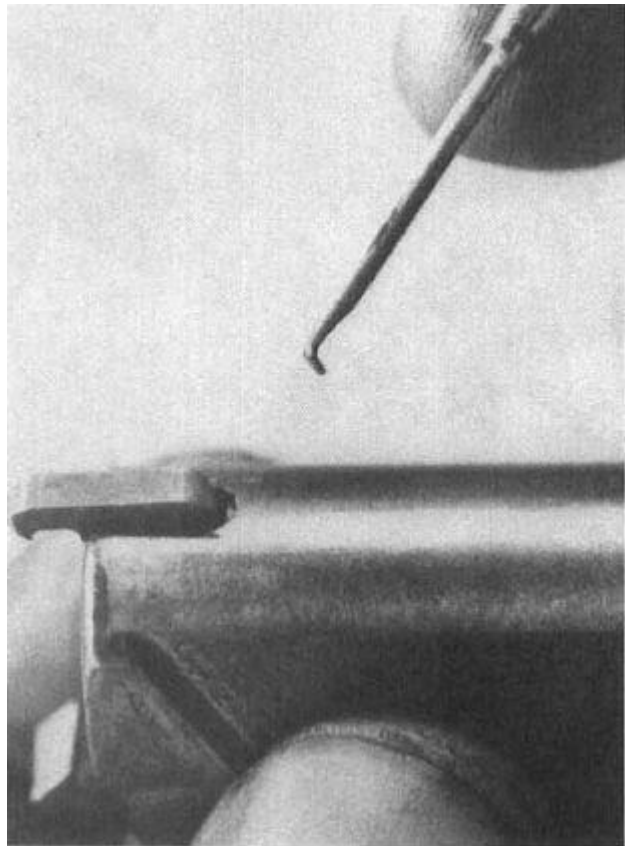


**26.** Drift out the cross pin at the lower front of the bolt, and remove the lower extractor and its spring downward.





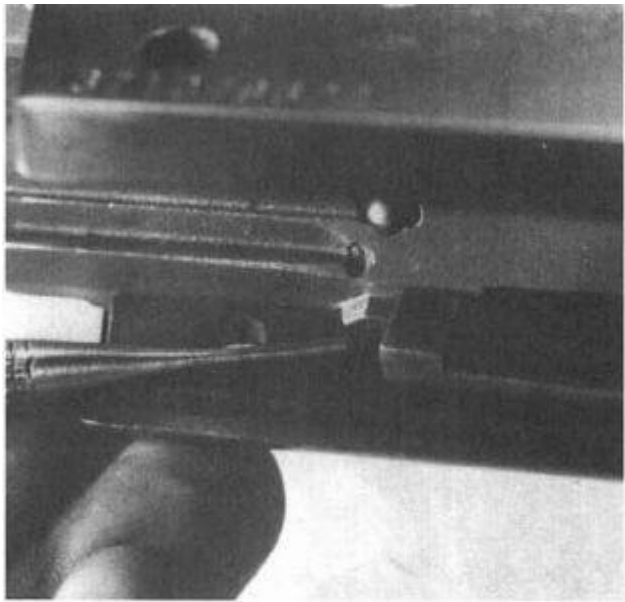




**27.** A special tool is required for removal of the top extractor, and this can be made by heating and bending the tip of a small screwdriver to give it an "L" shape. Insert the tool at the rear of the extractor, depress the plunger toward the rear, and lift the extractor out of its recess. Slowly release the spring tension, and remove the plunger and spring toward the front.

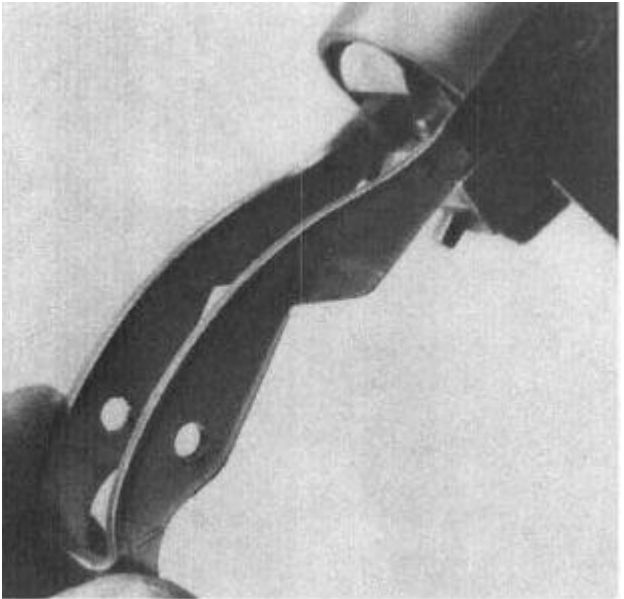
## **Reassembly Tips:**

- 1.** If the left shell stop has been installed prior to replacement of the bolt and bolt slide in the receiver, it will be necessary to depress the front of the shell stop to clear its rear upper projection for passage of the bolt assembly.



2. When installing the carrier, move the bolt all the way to the rear, insert the carrier until it stops, then move the carrier

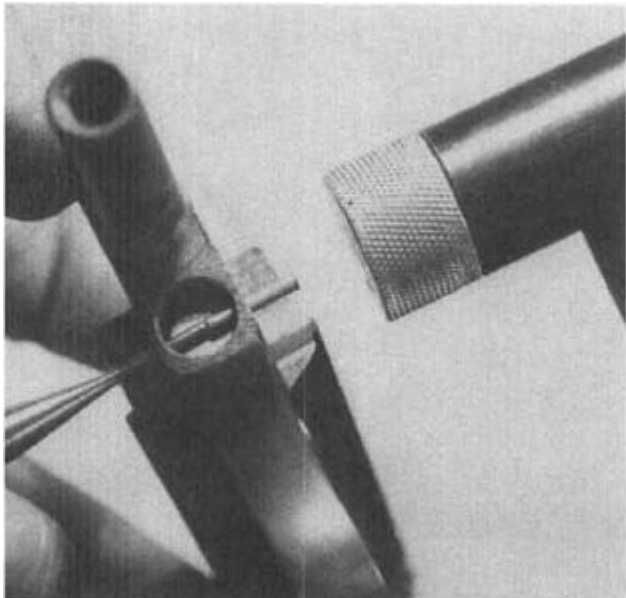
and bolt together back toward the front to align the carrier pivot holes.





**3.** When replacing the hammer

spring plunger, it will be necessary to lift the hammer strut to insure that its rear tip engages the cup at the front of the plunger, as shown.



4. When replacing the hammer spring cap, depress the cap and insert a drift punch to retain the cap while the pin is



replaced.

**Iver Johnson**

**Champion**



**Data:** Iver Johnson  
Champion

**Origin:** United States

**Manufacturer:** Iver Johnson,  
Fitchburg,  
Massachusetts

**Gauges:** 12, 16, 20, 28, and  
410

**Overall  
length:** 43-1/2 inches  
(with 28-inch  
barrel)

**Barrel  
lengths:** 26 to 32 inches

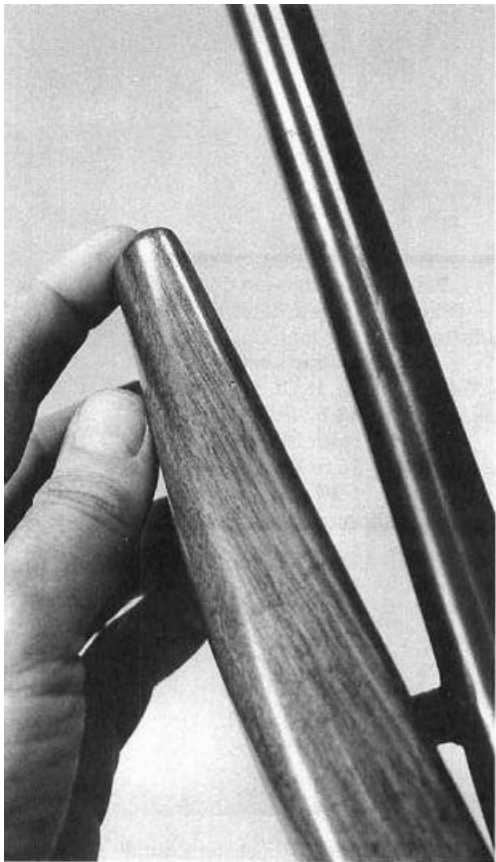
**Weight:** 5-3/4 to 6-1/2  
pounds

A good, solid design that has been virtually unchanged for 80 plus years, the Iver Johnson Champion has probably been sold in greater quantity than any other single-barrel external-hammer shotgun. During its long years of production, the Champion has been offered in a wide range of grades, from the ultra-plain hunting gun to fancy matted-rib styles with hand-checkered wood. In all of these, the original

mechanism of the original 1909 gun was maintained, and the instructions will apply.

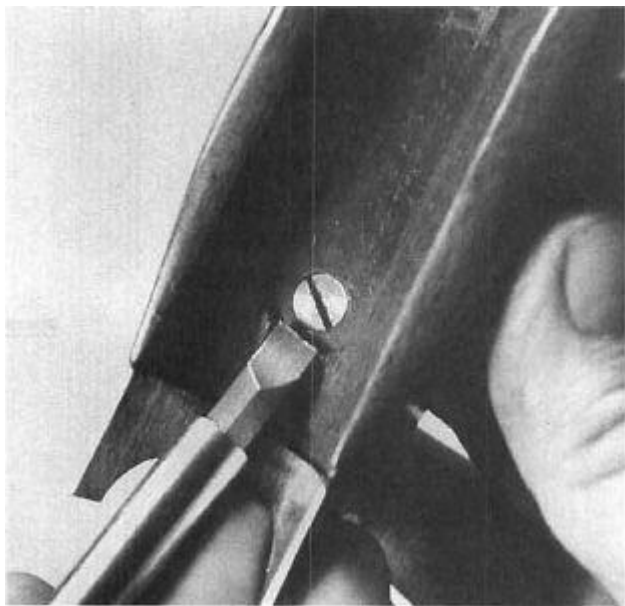
# Disassembly:

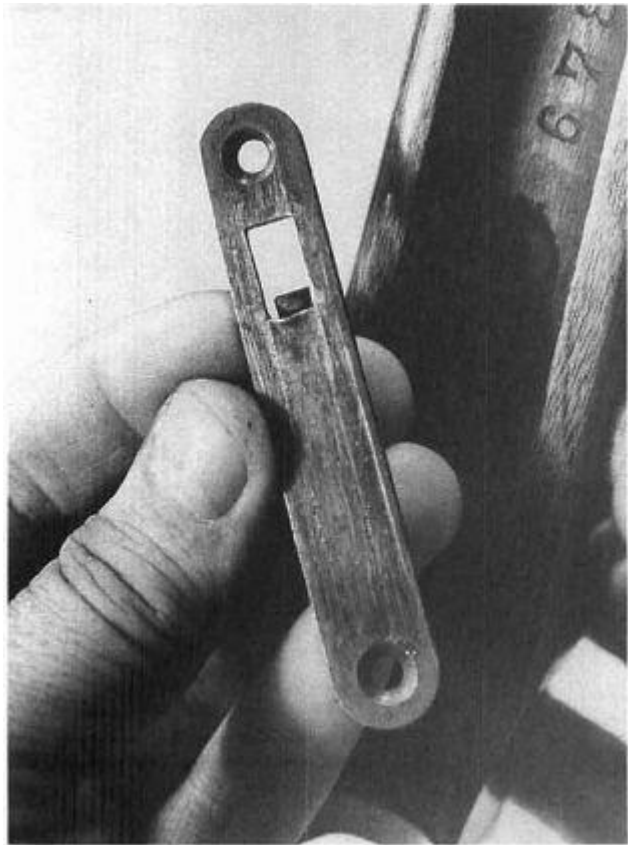
1. Pull the front of the forend away from the barrel until the forend latch releases, and take off the forend downward and toward the front.



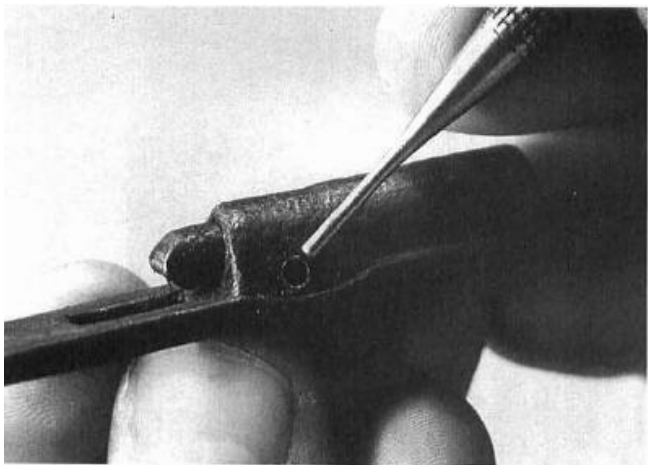


2. Remove the two vertical wood screws on the inside of the forend at the front and rear of the forend latch plate.

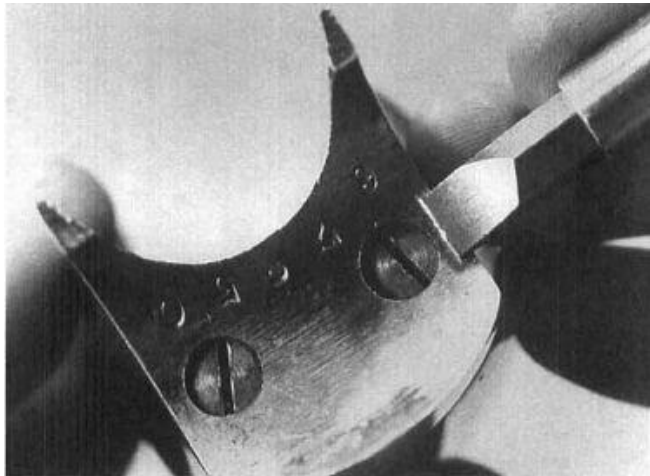


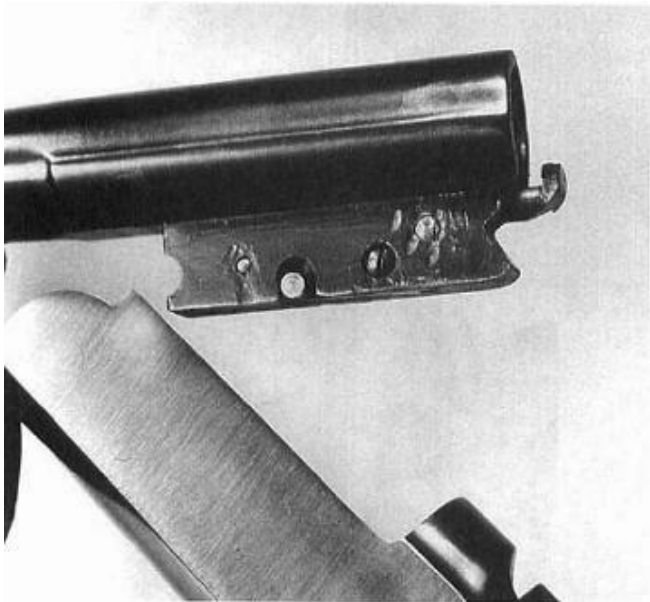


3. Remove the forend latch plate upward.
4. Drifting out the cross pin in the latch housing will release the latch plunger and spring for removal toward the front. Caution: This is a powerful spring, and is under tension. Restrain the plunger and ease it out.



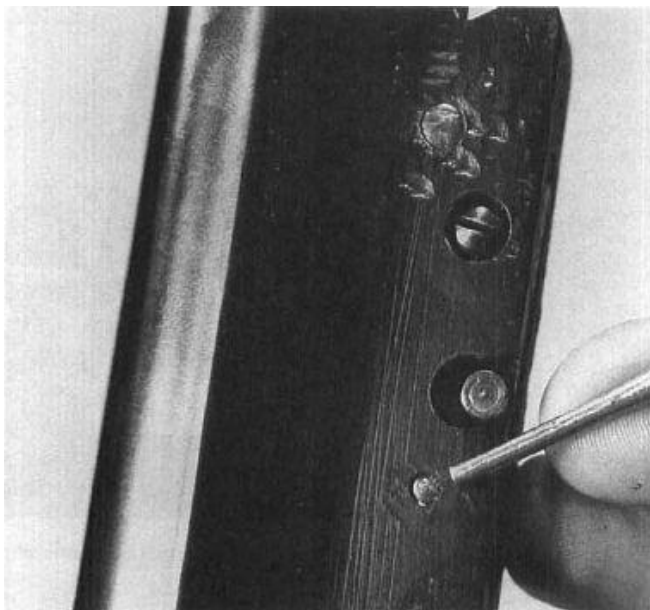
5. Removal of the two screws at the rear of the forend will allow the forend base to be taken off toward the rear.





6. Operate the barrel latch, tip the barrel downward and move it toward the rear, compressing the ejector slightly, and

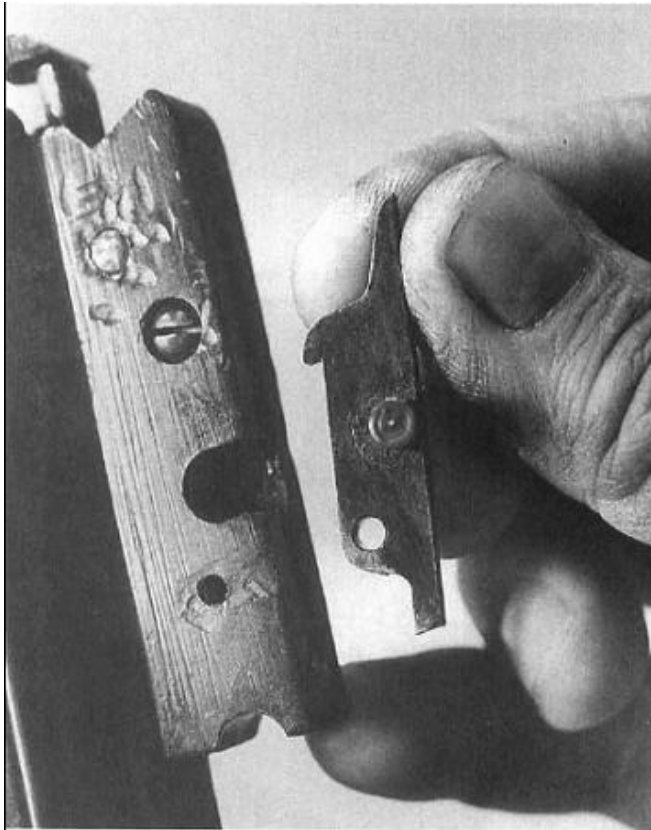
remove the barrel upward.



7. If the ejector is not tripped as the barrel is removed, pry the

trip stud on the left side of the barrel underlug downward, allowing the ejector to snap out, partially relieving the tension of its spring. Drift out the small pin at the front of the barrel underlug.

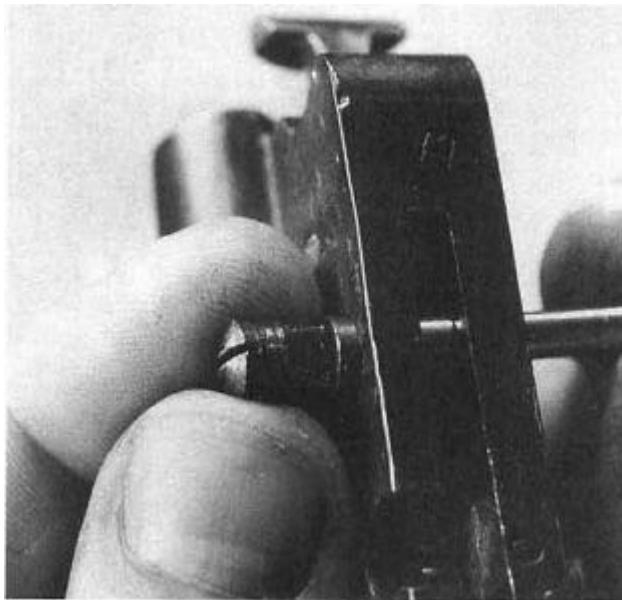




**8.** Remove the ejector catch lever downward.

**9.** Remove the ejector catch spring downward.



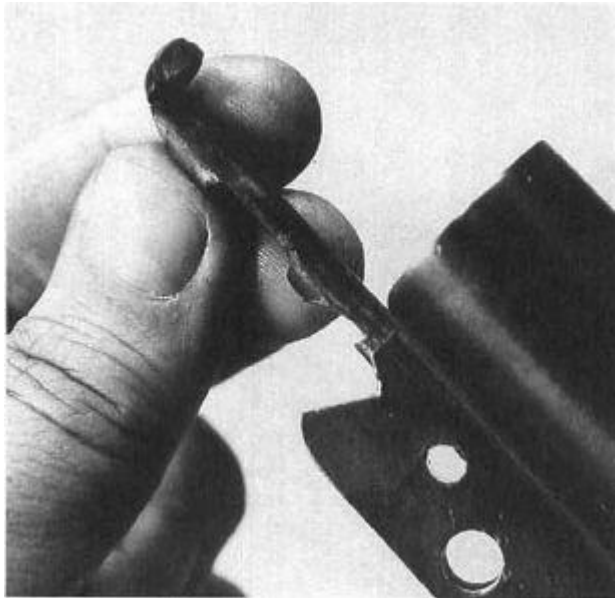


**10.** Push out the ejector selector switch toward the left, and remove it.

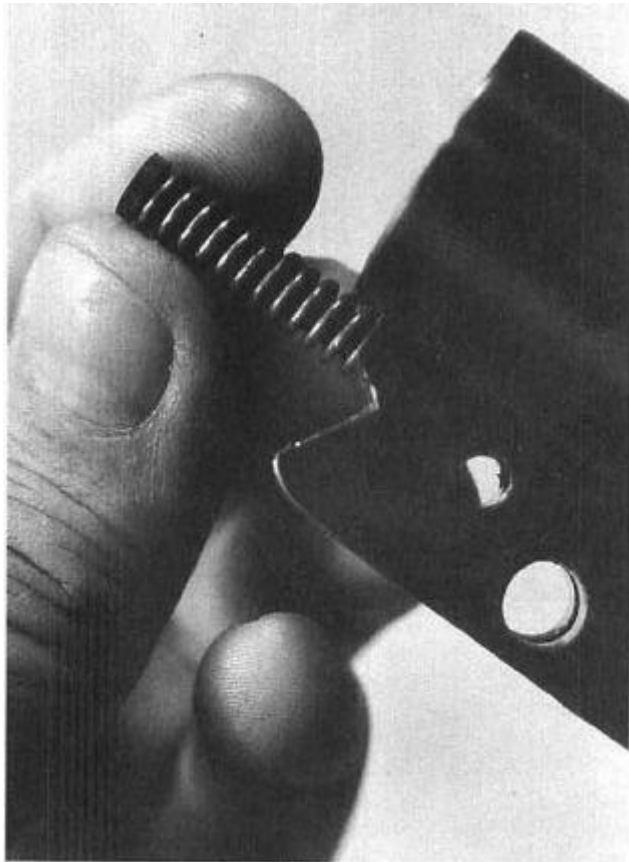


**11.** Drift out the large cross pin at the rear of the barrel underlug.

**12.** Remove the ejector toward the rear.



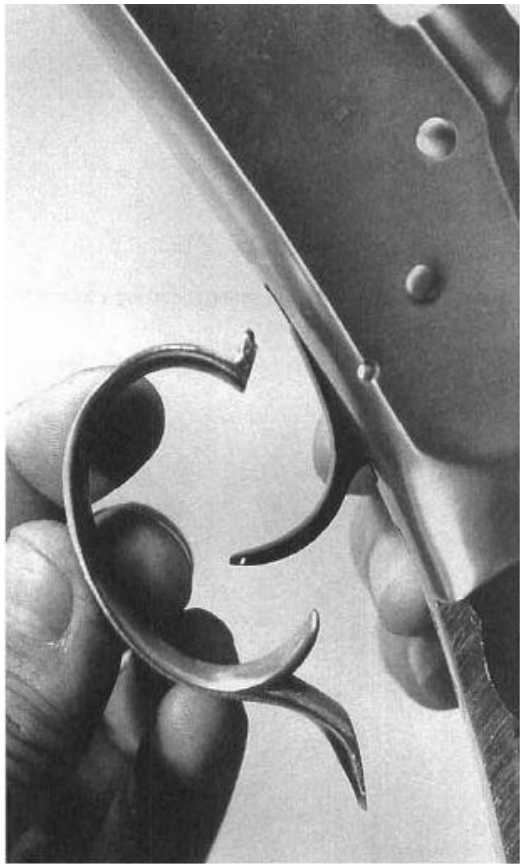
**13.** Remove the ejector spring and plunger toward the rear.



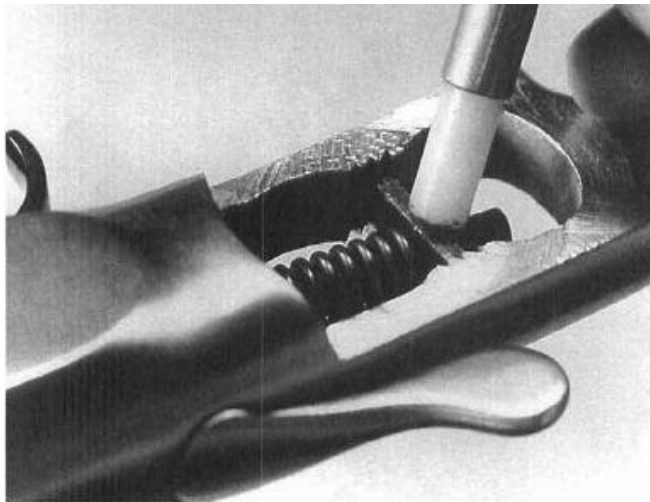


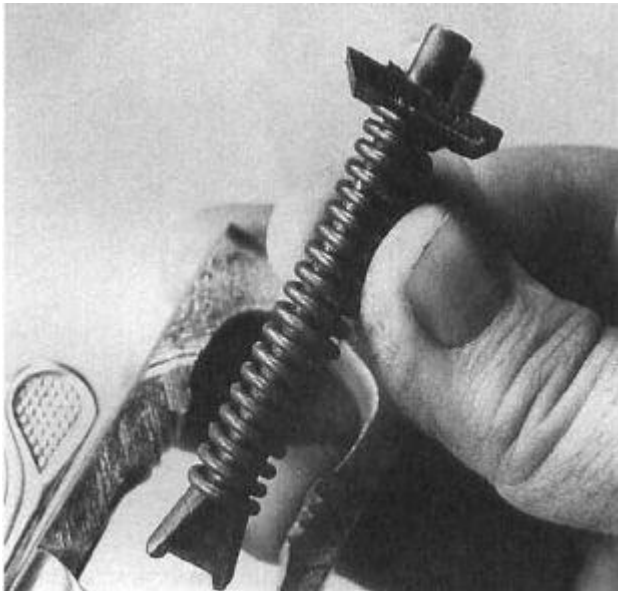


**14.** Remove the buttplate, and use a large screwdriver to back out the stock bolt. Remove the bolt, washer, and buttstock toward the rear.



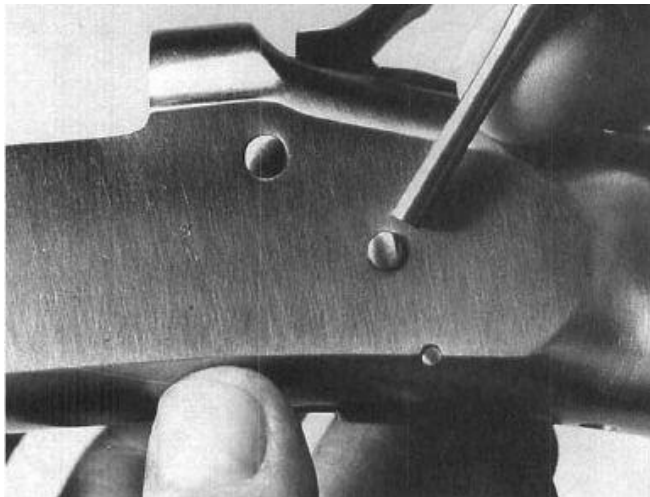
- 15.** Remove the screw at the rear of the trigger guard, and remove the trigger guard downward.
  
- 16.** Use a brass or nylon drift to nudge the hammer spring base out of its notches in the upper and lower tangs of the receiver.





**17.** Remove the hammer spring assembly toward the rear. Note that the spring can be removed by drifting out the

vertical pin at the rear. Caution: The hammer spring is powerful, and is partially compressed. Grip the front of the guide firmly, press the base against a partially opened bench vise, and push out the pin. Release the spring tension slowly.



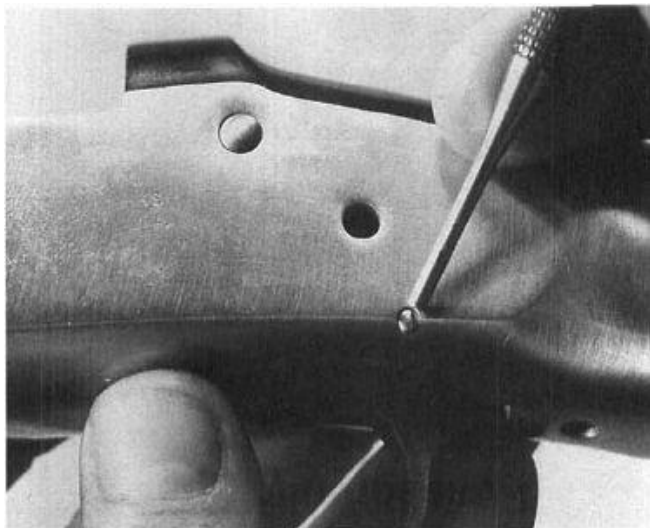
**18.** Drift out the hammer cross pin with a non-marring tool.

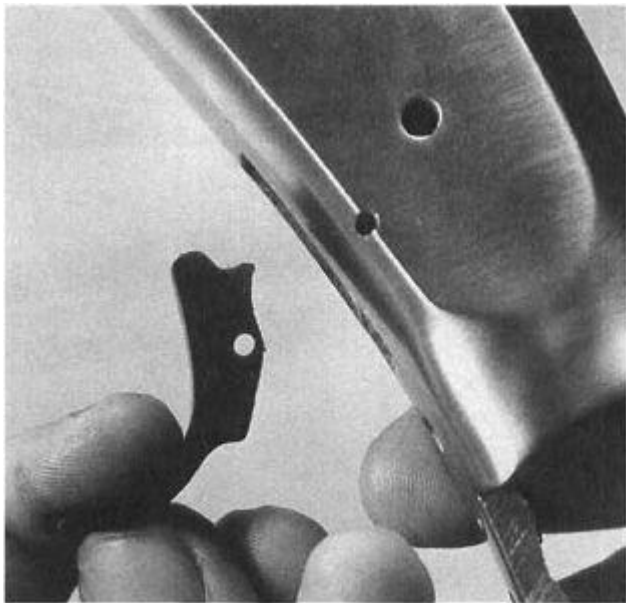




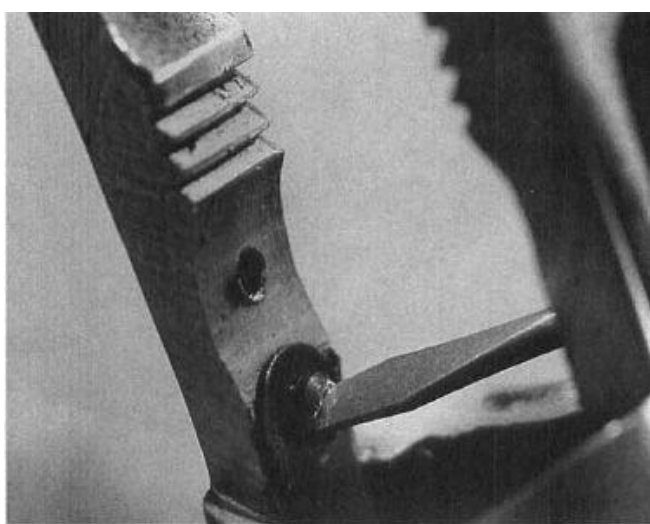
**19.** Tip the hammer forward to clear its rear edge, then remove it upward.

**20.** Drift out the trigger cross pin.





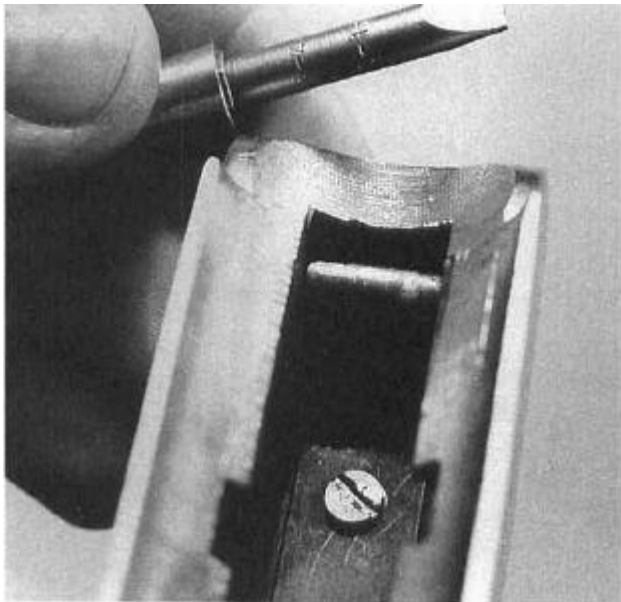
**21.** Remove the trigger downward.



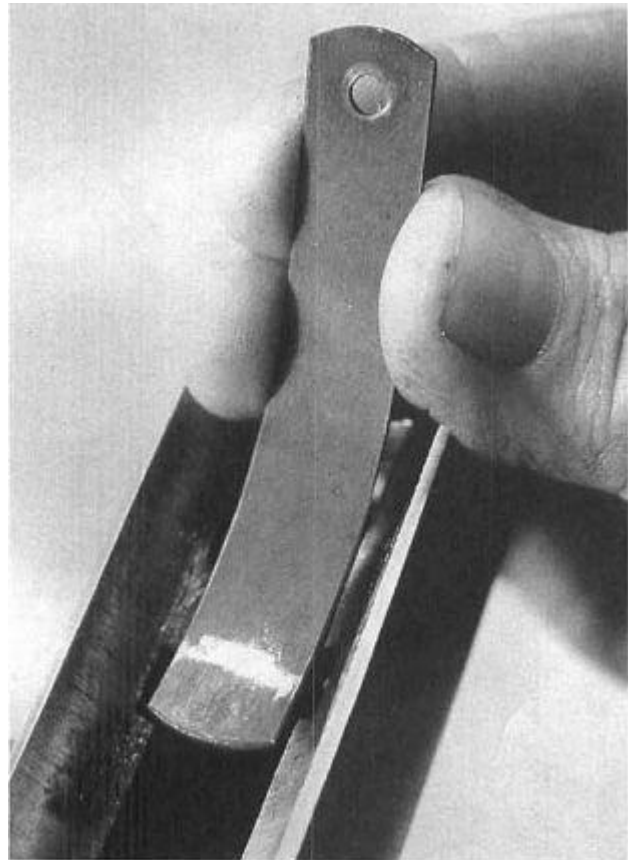
**22.** The trigger spring is retained by a screw that has no direct access. Use an offset screwdriver, or one with an angled tip, to remove the screw, and take out the spring

toward the rear.

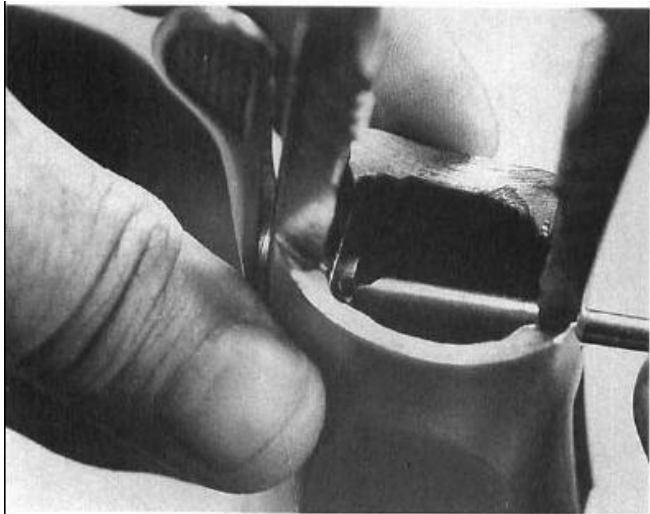
- 23.** Insert a screwdriver into the top front of the receiver, and back out the screw that retains the barrel latch spring.



**24.** Remove the barrel latch spring upward and toward the front.

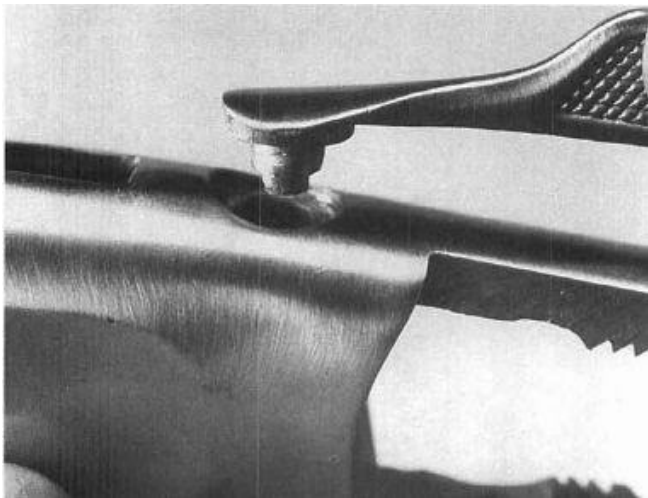






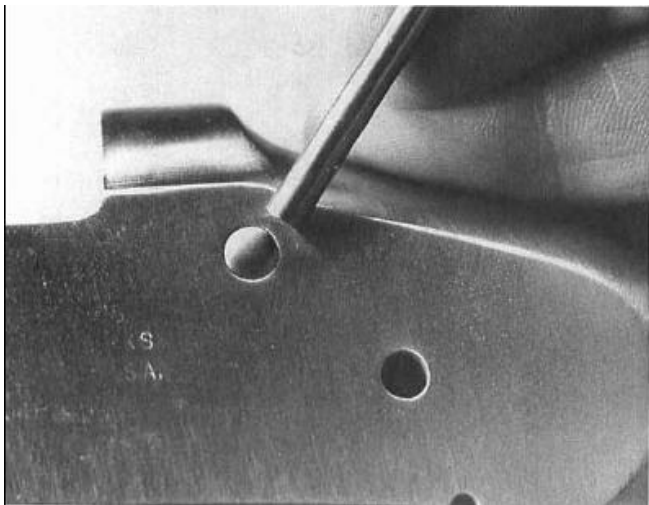
**25.** There is an access hole in the underside of the receiver, just to the rear of the trigger slot, for insertion of a small-diameter screwdriver to remove the screw that retains

the barrel latch lever. Take out the screw downward.



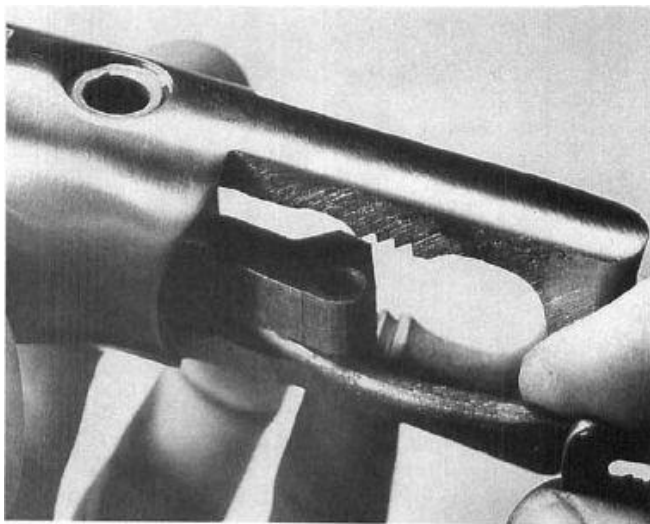
**26.** Remove the barrel latch lever upward.

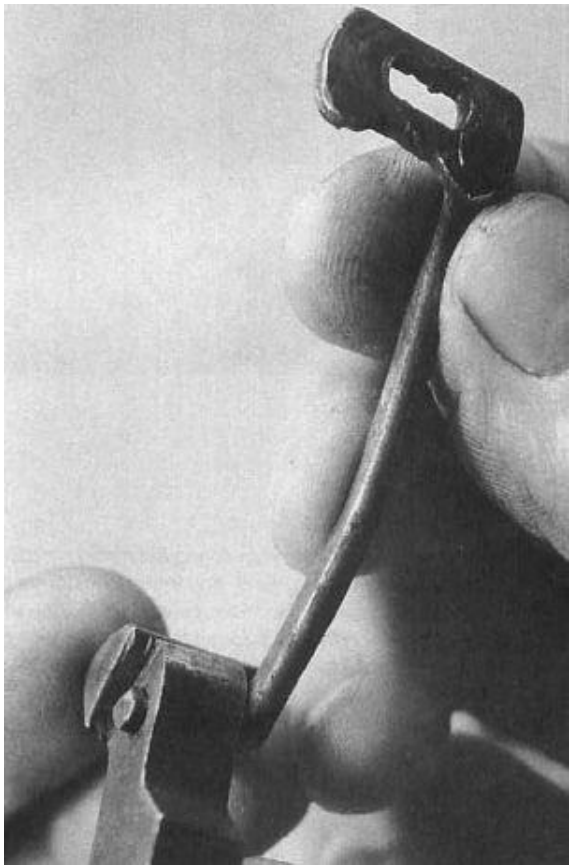
**27.** Drift out the barrel latch cross pin.



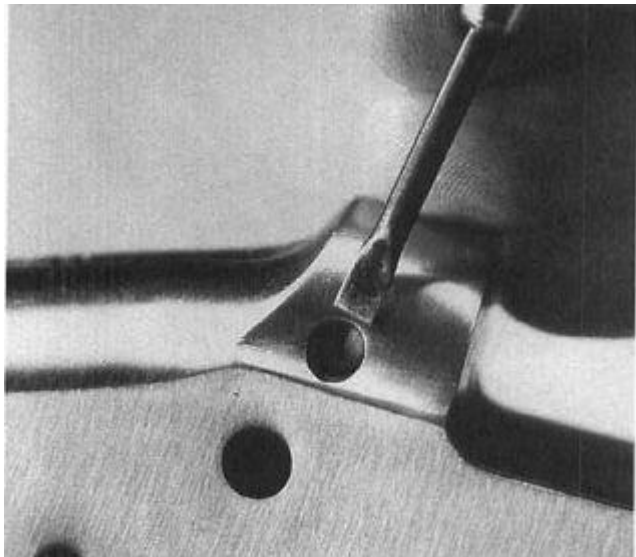
**28.** Turn the barrel latch to clear the hammer pivot projections on the inside of the receiver,

and move the barrel latch assembly to the rear, taking it out toward the side.





**29.** The barrel latch connecting rod is usually riveted to the barrel latch block and the cam yoke at the rear, and should not be detached unless necessary for repair.



**30.** Remove the small screw on the right side of the receiver near the top, and take out the firing pin and its return spring toward the rear.





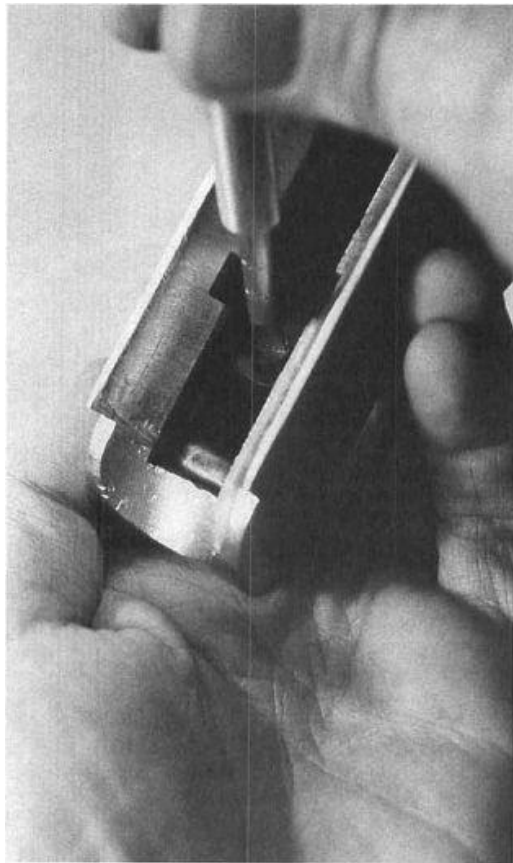
# Reassembly Tips:

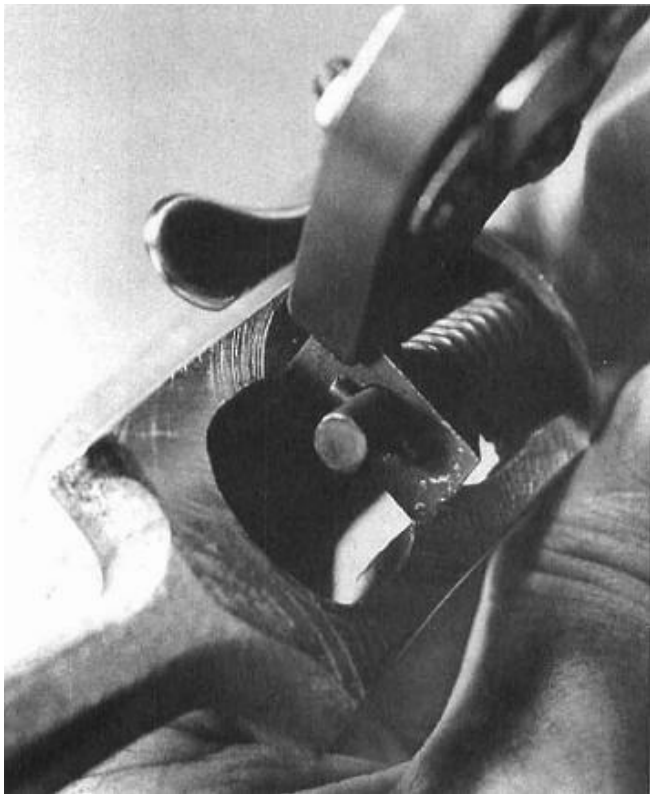
1. When replacing the barrel latch system, note that it must be installed in the position shown, with the notch in the cam plate toward the front.



2. When replacing the barrel latch spring, place the rear tip of the spring under the barrel latch, and insert the spring screw in the hole in the front of the spring. Engage a screwdriver

in the screw slot, and use the screwdriver to push the spring downward, guiding the screw into its hole in the receiver. Take care that the screw enters the hole vertically, and avoid cross-threading it.





**3.** When installing the hammer spring assembly, grip the spring base plate with pliers, and insert one corner of the plate into its notch in the receiver. Then, grip the base at its other end, and spring the other corner into its notch. The base can then be driven into place. Note that three sets of notches are provided, to allow for adjustment of the spring tension.

# Marlin Model 26





## **Similar/Identical Pattern Guns:**

The same basic assembly/disassembly steps for the Marlin Model 26 also apply to the following guns:

**Model 1898**

**Model 17**

**Model 19**

**Model 21**

**Model 24**

**Model 30**

**Model 42**

**Model 49**

**Data:** Marlin Model 26

**Origin:** United States

**Manufacturer:** Marlin Fire Arms  
Co., New Haven,  
Connecticut

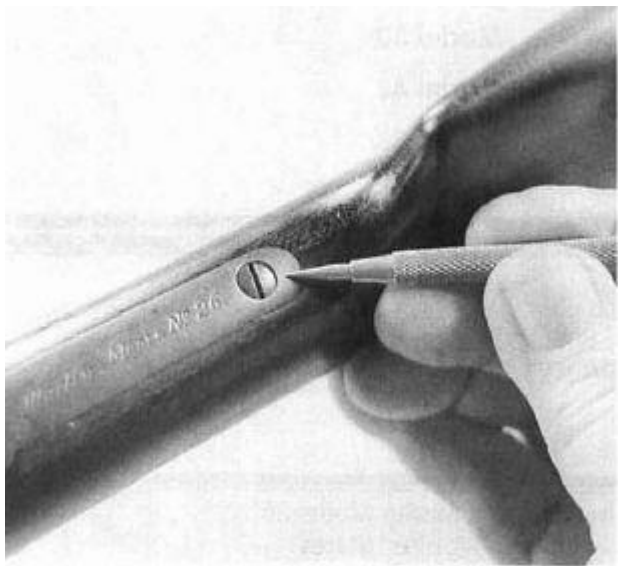
<b>Gauges:</b>	12,16, and 20
<b>Magazine capacity:</b>	5 rounds
<b>Overall length:</b>	49 inches
<b>Barrel length:</b>	30 inches (others offered)
<b>Weight:</b>	<b>7-118 pounds</b>

Designed by Lewis L. Hepburn, the Marlin slide-action was a better and stronger gun than its main competitor, the

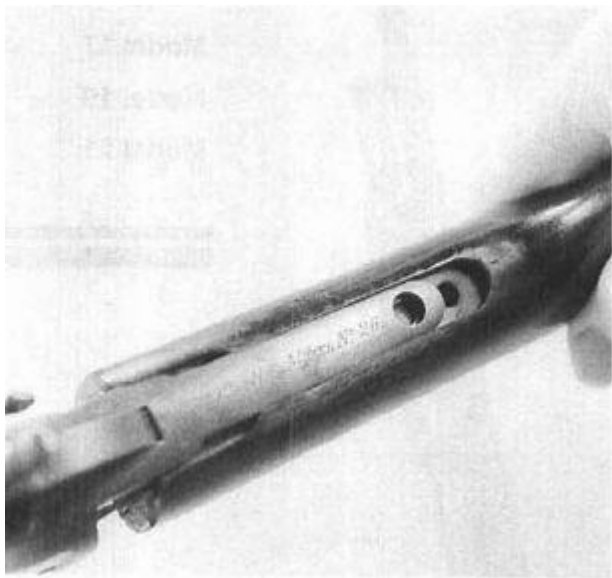
Winchester of 1897. Most of the Marlins were "takedown" types, with the barrel unit being easily removable from the receiver. The Model 26, shown here, had a fixed barrel. The "takedown" types have a little lever that is aligned with a recess in the action slide, allowing it to move forward out of the receiver. The barrel unit is then turned for removal.

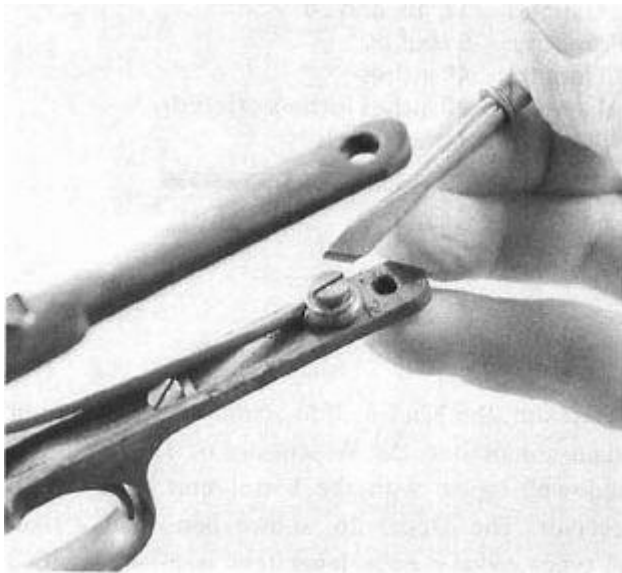
# Disassembly:

1. Remove the stock retaining screw.



2. Remove the buttstock toward the rear. It may be tight, and may require bumping with a rubber mallet to start it.





3.

rInepthlaicsepdawrtiitchualarro  
wthiere htyapmem. Neor  
rsmparilnlyg,

thhaesspbreinegn will be a blade type. Use an offset or angle-tip screwdriver to loosen or remove the spring mountingscrew. You can swing the spring to the side, or remove it.

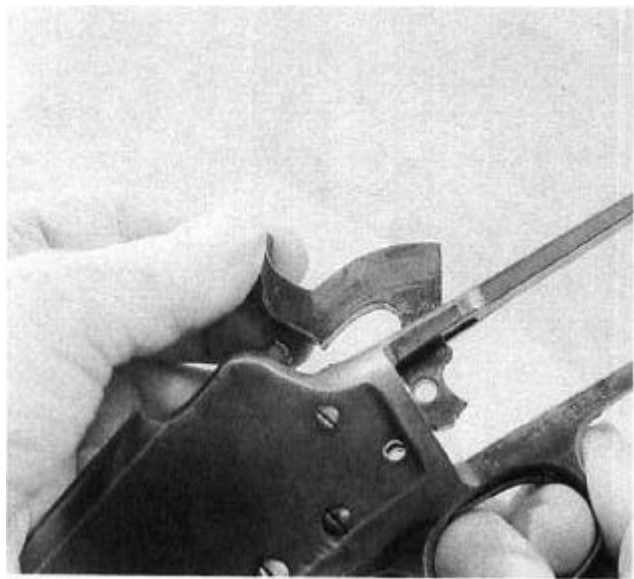


**4.** Remove the hammer pivot screw.

**5.** Tip the hammer forward to clear

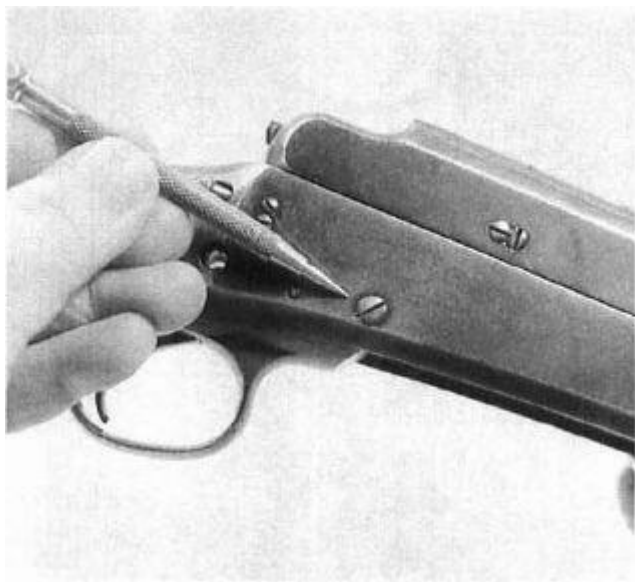


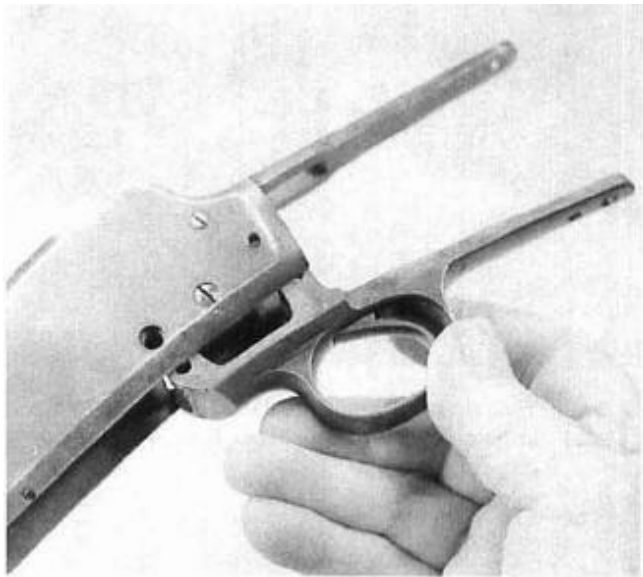
its rear upper edge, and remove it upward.



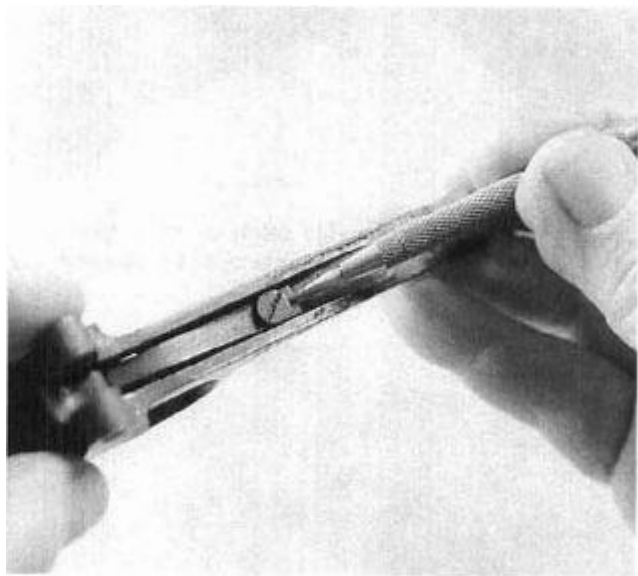
**6.** Remove the screws on both sides of the receiver at the

front of the trigger guard.



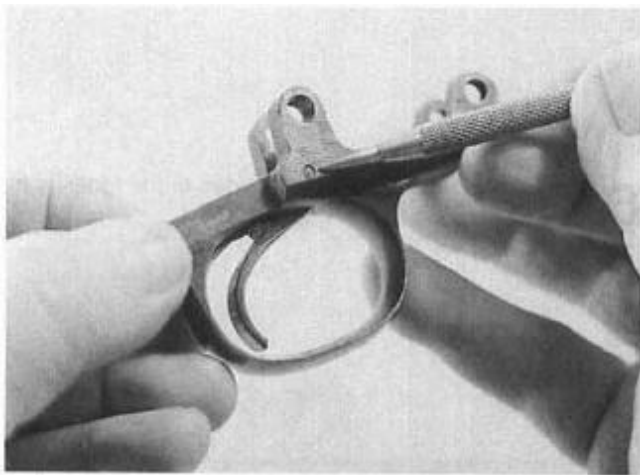


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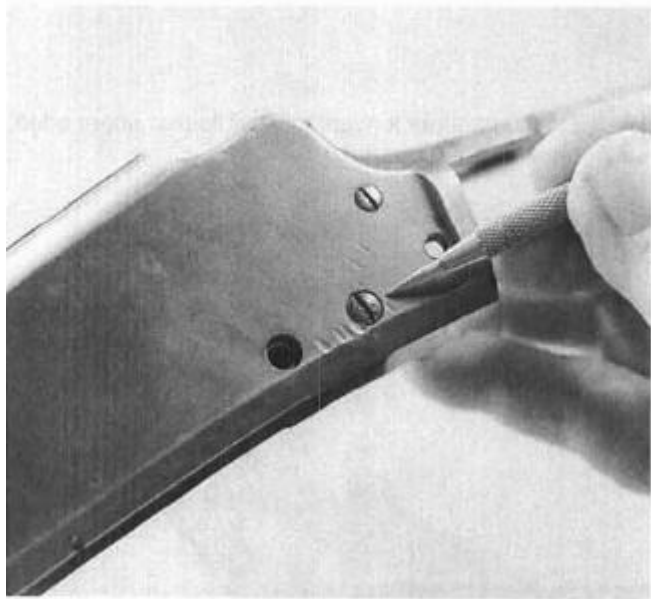
8. bReetmakoevna l ooouf tt  
huipswsacrrde.w will allow  
the trigger spring to

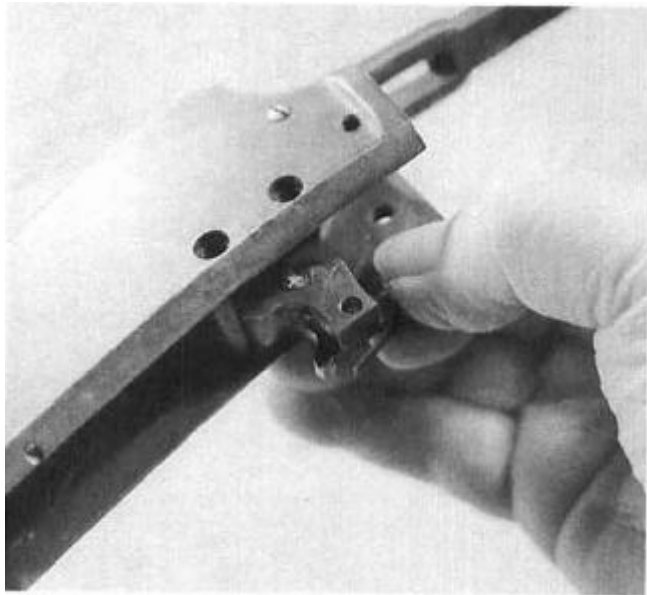
- 9.** Drift out the cross pin, and remove the trigger upward.



- 10.** Remove the screw that pivots and retains the hang-fire safety. (Note: Marlin parts

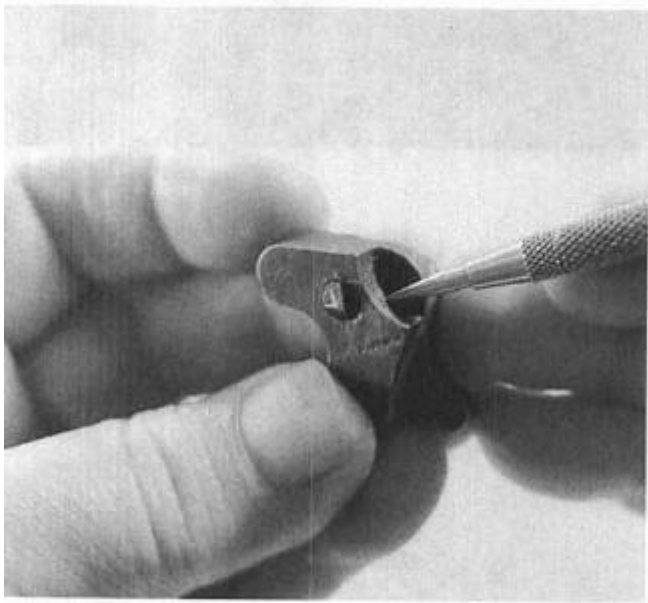
lists call this the "recoil block." Its function was to keep the action closed in case of a hang-fire with early shells.)





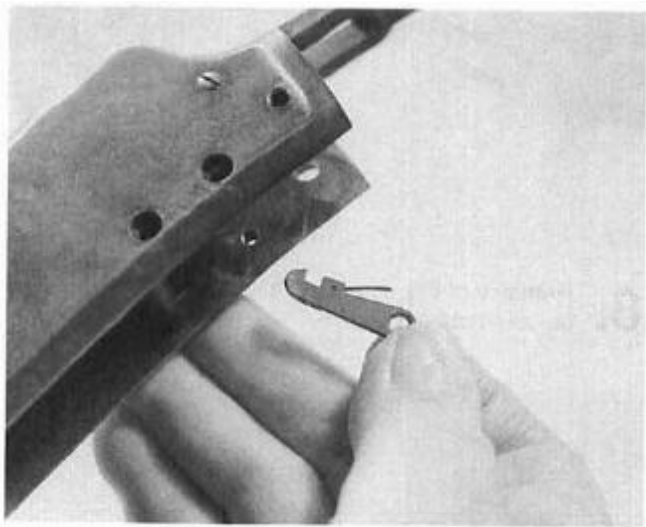
- 11.** Remove the hang-fire safety or "recoil block." Its blade spring is staked in place, and is removed only for repair.





**12.** The release plunger and its coil spring are retained in the safety by an angled pin.

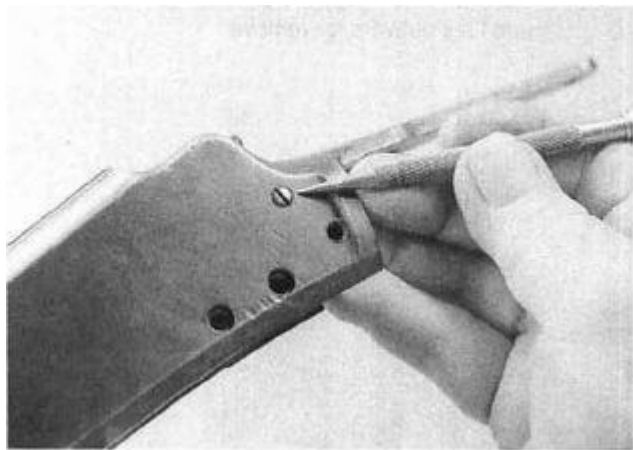
Remove this system only for repair.



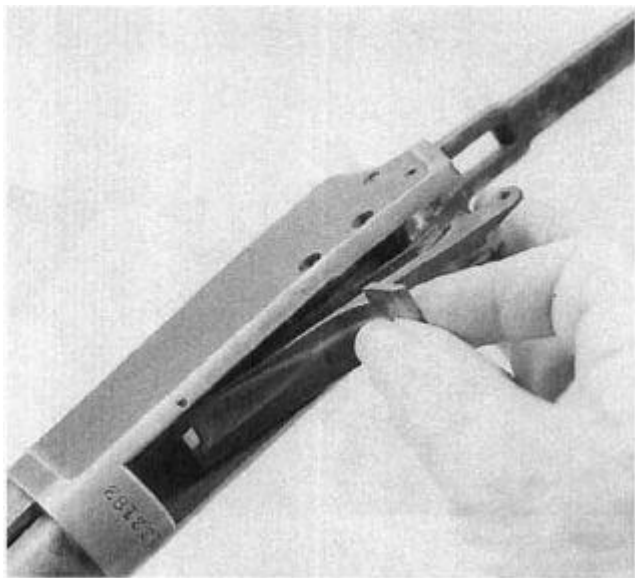
**13.** Take out the hang-fire safety catch lever. Its blade spring is

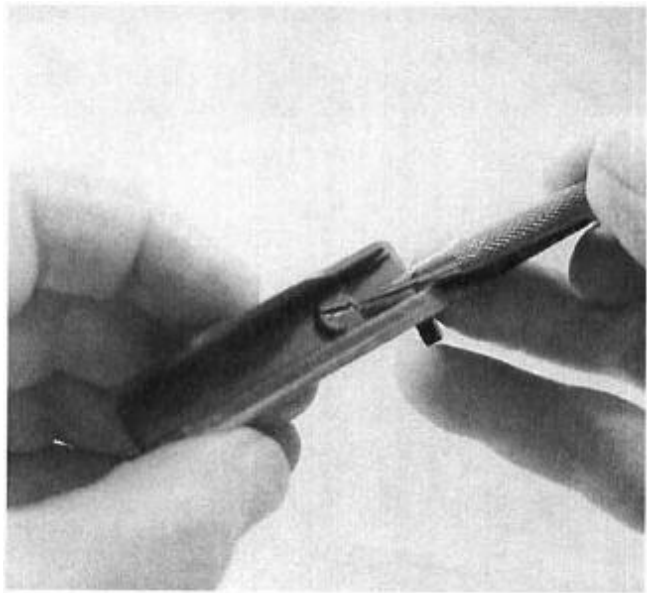
staked in place, and is removed only for repair.

**14.** Remove the carrier pivot screw.

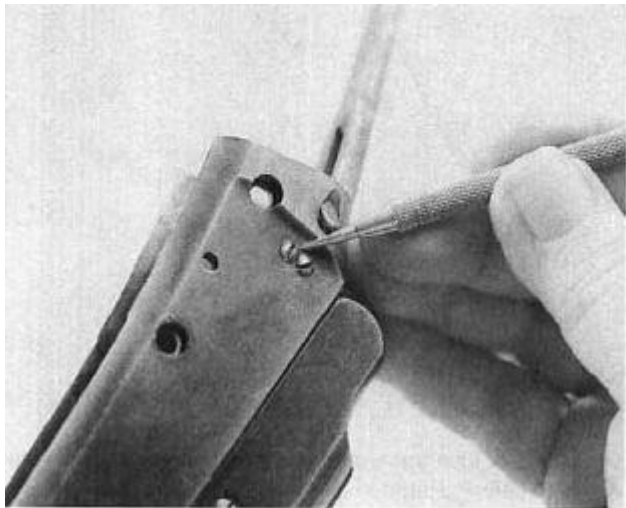


**15.** Lift the carrier at the rear, and move it rearward for removal.

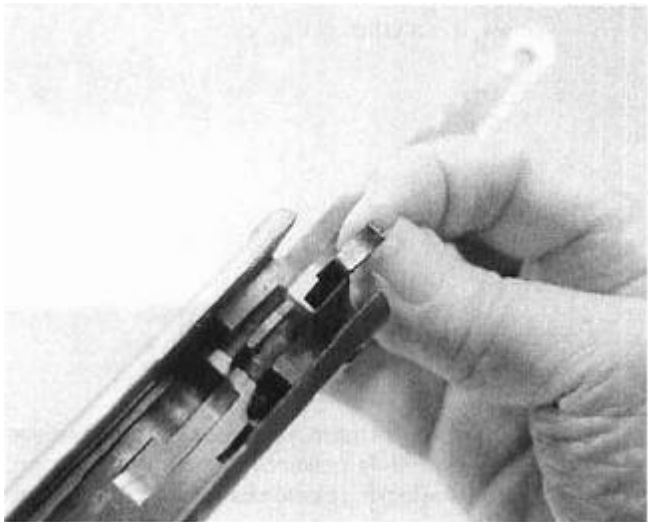




**16.** The secondary shell stop is retained in the carrier by this screw.

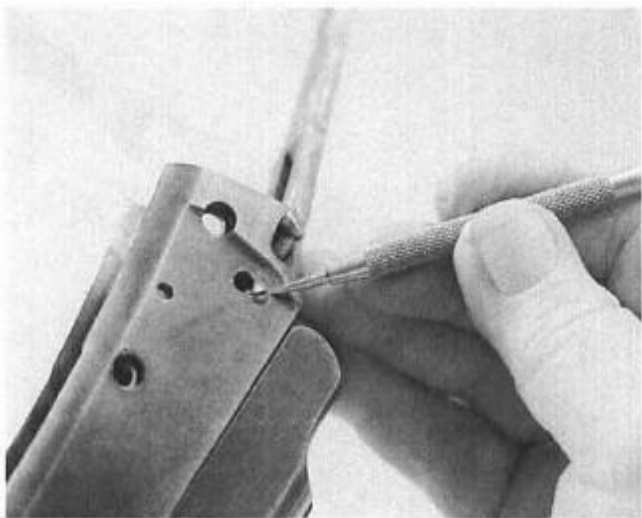


- 17.** Remove the safety-sear screw. Restrain the sate-ty-sear as the screw is taken out.



**18.** Remove the safety-sear. Its staked-in blade spring is removed only for repair.

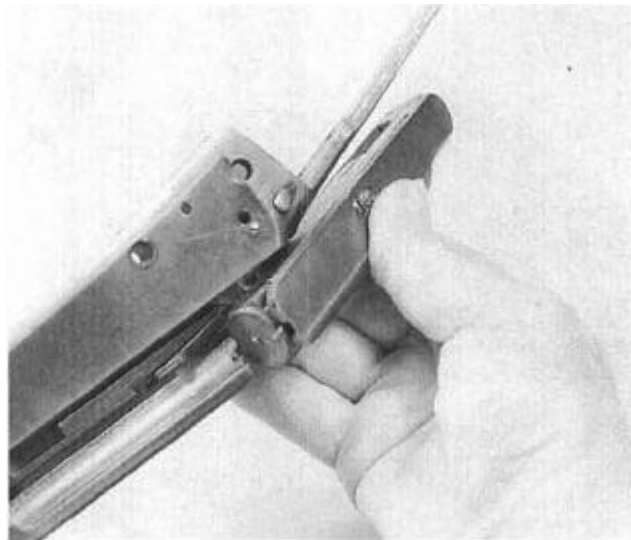
**19.** The bolt release button can be taken out toward the rear by removing this screw.

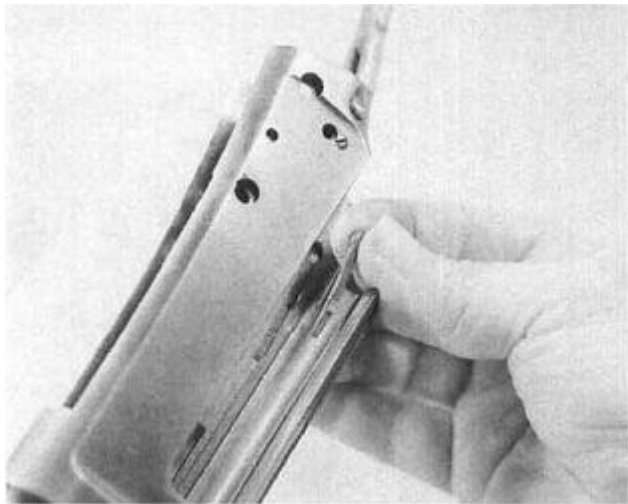


**20.** Depress the firing pin to

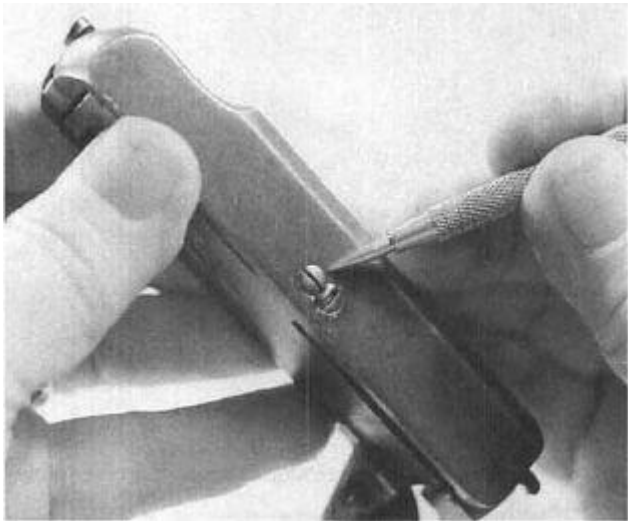


release the bolt lock, and use the action slide to move the bolt all the way to the rear. Disengage the bolt from the action slide, and tip it outward for removal.

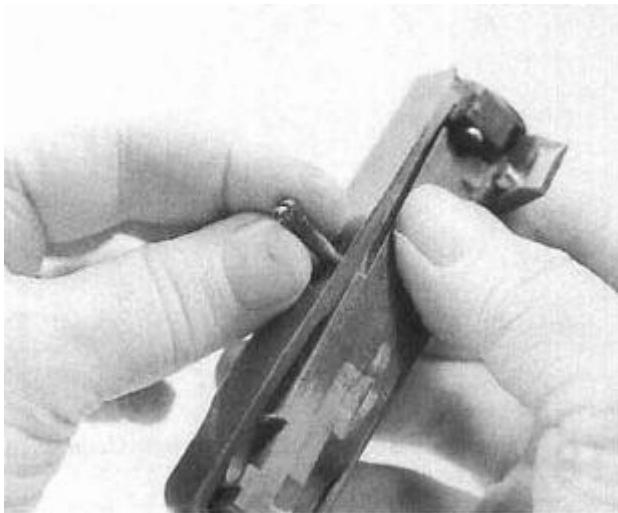




**21.** Remove the ejector from its recess inside the receiver. Remove its staked blade-type spring only for repair.

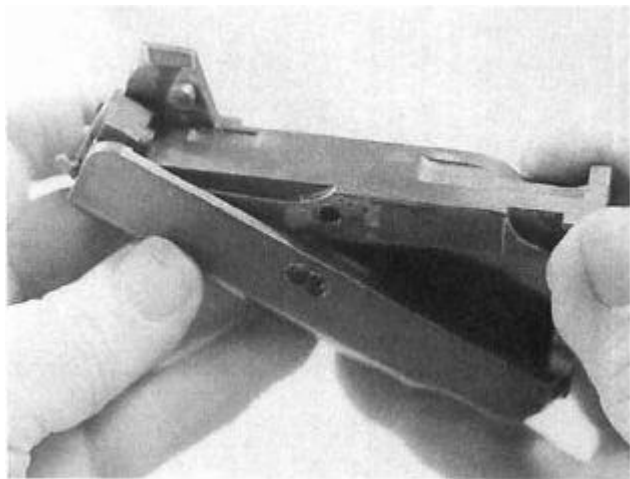


**22.** Remove the lock screw on the right side of the bolt. Note that the screw-slotted part beside it is not a screw, it is a cross pin.



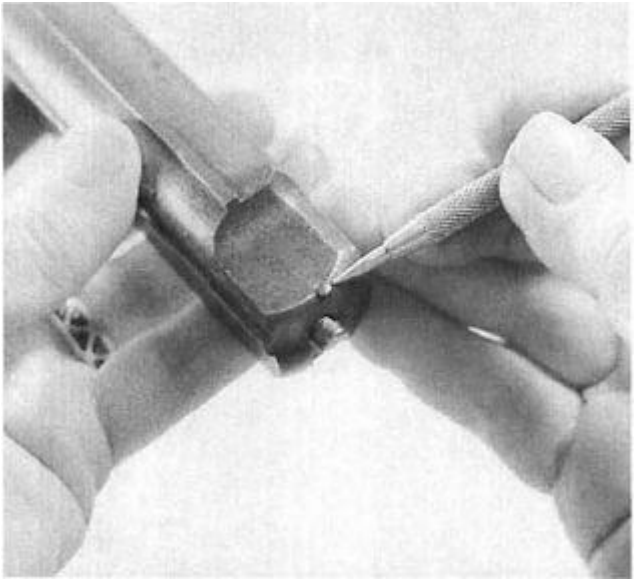
**23.** Push the front of the locking block inward, to relieve the tension of its positioning plunger and spring. Drift out the locking block cross pin toward the right.

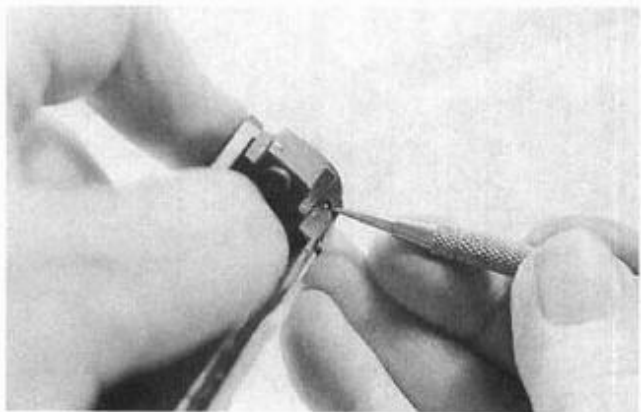
**24.** Remove the locking block from the bolt.



**25.** The firing pin and its spring can be taken out toward the

rear by drifting out this vertical pin downward. If this is done, use a non-marring drift.

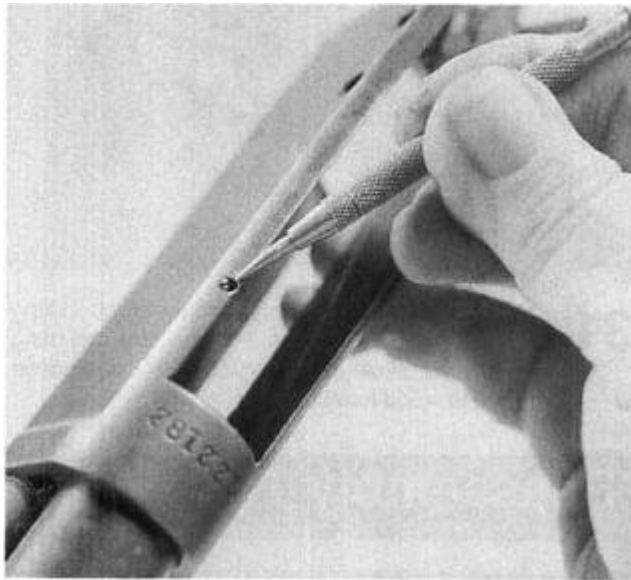




**26.** The left extractor and its coil spring can be removed by driving out this pin upward. The pin retaining the right extractor and its blade-type spring is drifted out downward, and the right extractor is removed toward

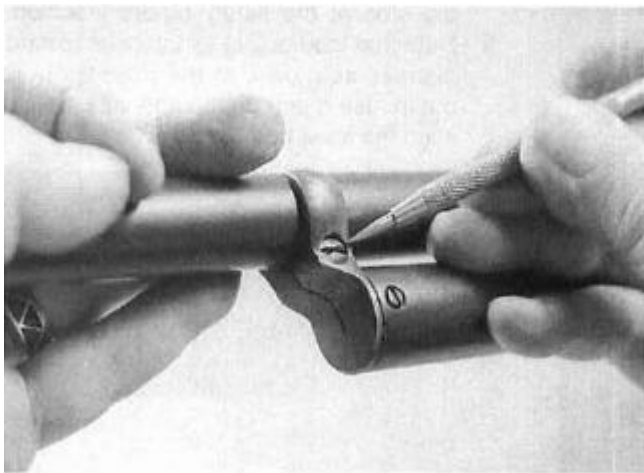


the front. Remove the spring only for repair. If the pin is drifted all the way out, the bolt lock tension plunger and its coil spring will be released for removal. Control the plunger and spring as the pin is drifted out.



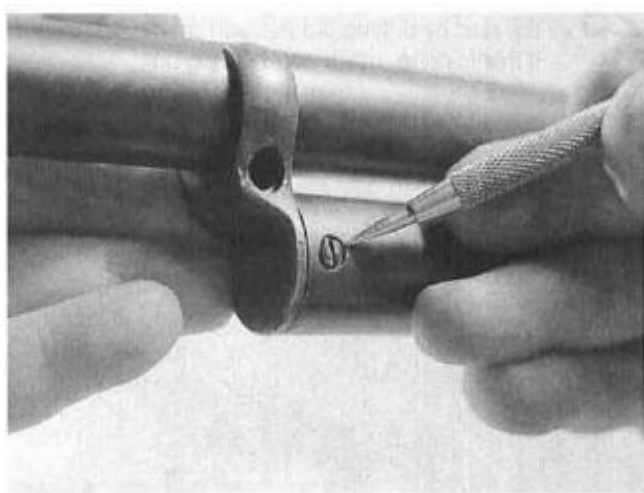
**27.** This tiny vertical screw pivots and retains the primary shell stop inside the receiver. The shell stop is powered by a

blade spring, staked in place.  
Remove it only for repair.

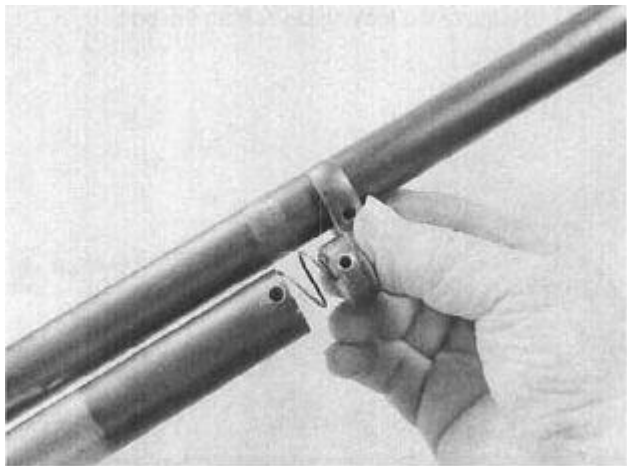


**28.** Remove the cross screw from  
the magazine tube hanger.

**29.** Remove the cross screw at the front of the magazine tube. If the tube plug on the hanger is loose, magazine spring will push it out, so control it.



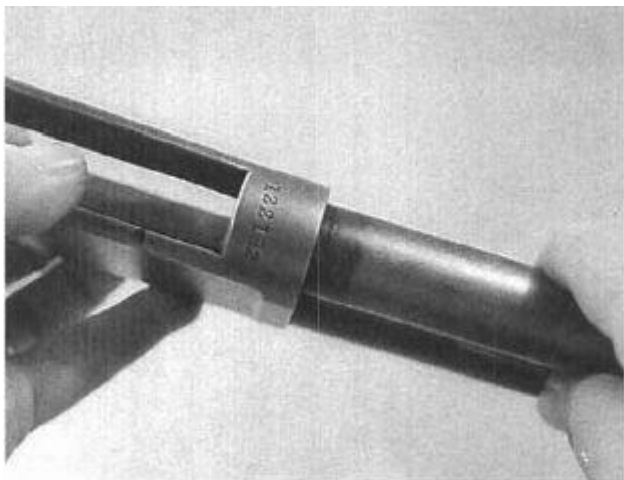
**30.** If the hanger and plug are tight, use a non-marring tool to nudge it forward. Remove the hanger, mag-theazine spring, and magazine follower.





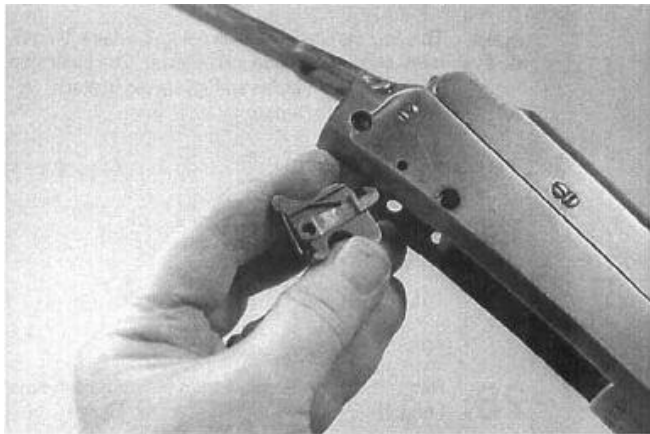
**31.** Remove the action slide toward the front. Taking out the two lock screws and the two mounting screws will allow the action slide to be removed from the wood

handle.



- 32.** Unscrew (counter-clockwise, front view) the magazine tube and remove it from the receiver.

# Reassembly Tips:



1. When installing the hang-fire safety, it is best to set the catch-lever in its recess on the side of the safety before insertion. Note that the hook at



its top goes toward the rear, as shown. As the cross-screw is put in, use a drift on the opposite side to align the lever hole.

# Marlin Model 55



## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Marlin Model 55 also apply to the following guns:

**Glenfield Model 50**

**Marlin Model 55 Super Goose**

**Marlin/Glenfield Model 55-G**

**Marlin Model 55 Hunter**

**Marlin Model 55s**

**Marlin Model 5510**

**Marlin Model 55-G**

**Marlin Model 55 Swamp Gun**

**Data:** Marlin Model 55

**Origin:** United States

**Manufacturer:** Marlin Firearms  
Company North  
Haven,

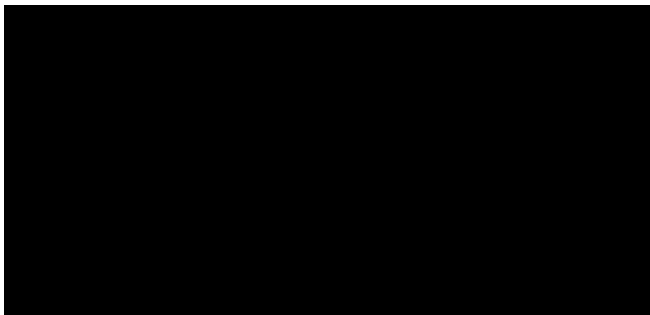
**Gauges:** Connecticut  
10, and 12

**Magazine  
capacity:** 2 rounds

**Overall  
length:** 46-1/2 inches  
(with 26-inch  
barrel)

**Barrel length:** 26 to 36 inches

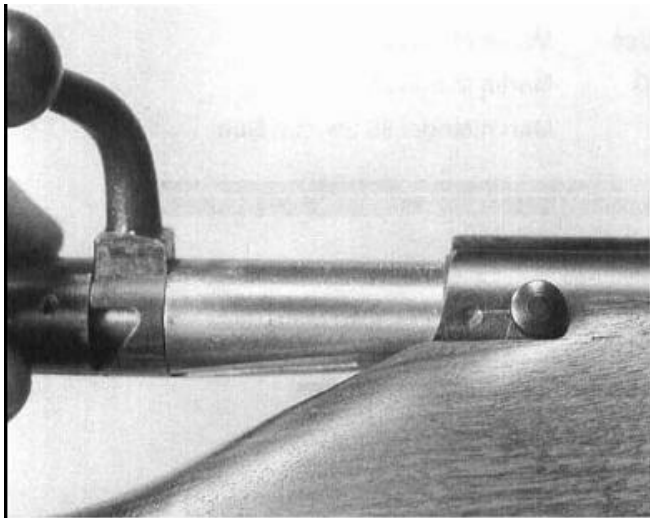
**Weight:** 7-112 to 10-1R  
pounds



Originally offered in 1950 in 12-, 16-, and 20-gauge, the Model 55 is now available only in 12-gauge as the "Goose Gun," and in 10-gauge as the "SuperGoose." The Marlin/Glenfield Model 50 is mechanically the same, and the instructions will apply to that gun as well. As with most bolt-action shotguns, the mechanism is relatively simple, and takedown and reassembly are not difficult, with the possible exception of the safety system. This gun was made in 10-gauge from 1976 to 1985 as the Model 5510.

# Disassembly:

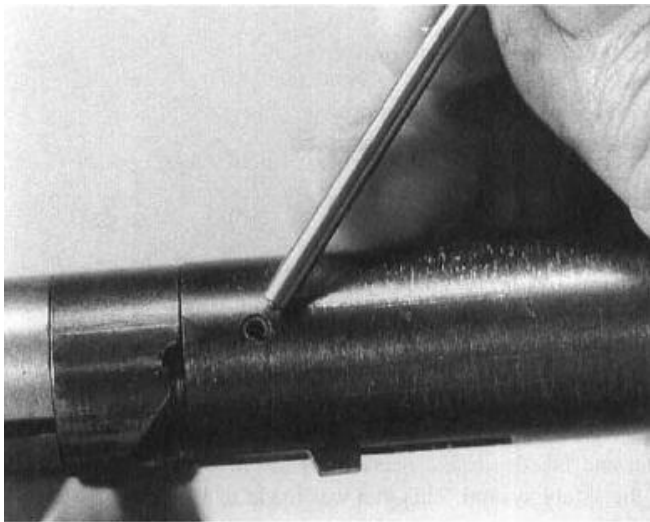
1. Remove the magazine. Open the bolt, pull the trigger and hold it to the rear, and remove the bolt from the rear of the receiver.



- 2.** Grip the front portion of the bolt, and turn the bolt handle clockwise (rear view) to drop the striker to the fired position, as shown.



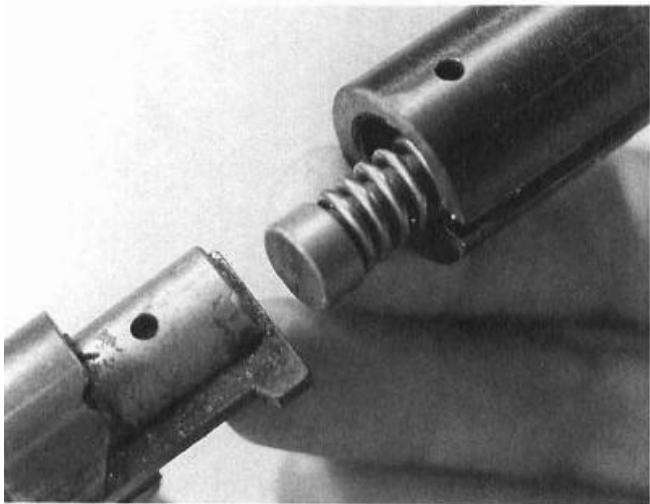




- 3.** Use a roll-pin punch to drift out the roll cross pin near the forward edge of the rear section of the bolt. Note that the striker spring is still under some tension, so control the

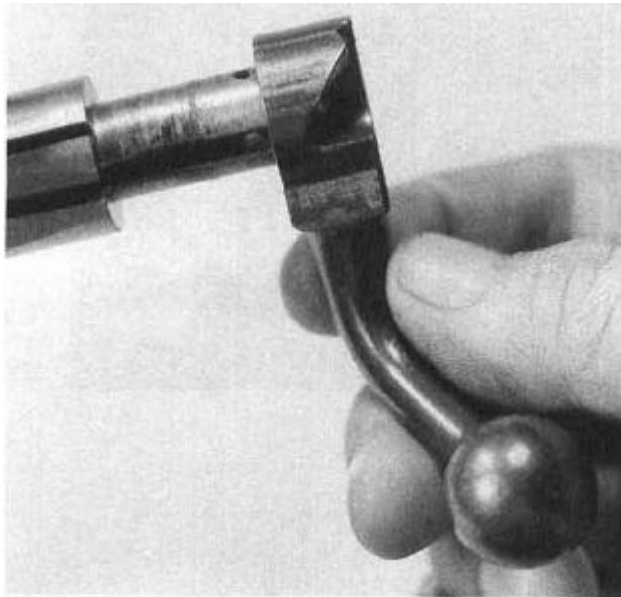
rear section when the pin is drifted out and the punch removed.

- 4.** Remove the rear section, and take out the striker spring and its guide from inside it.

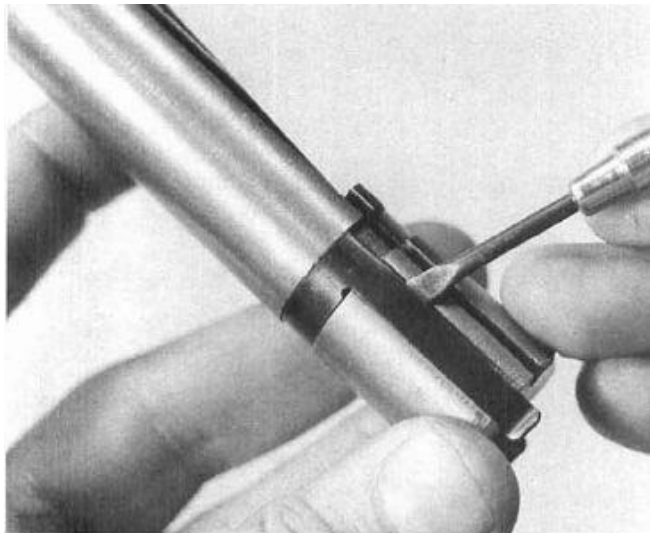


5. Remove the striker (firing pin) from the forward section, toward the rear.





**6.** Remove the bolt handle unit toward the rear.

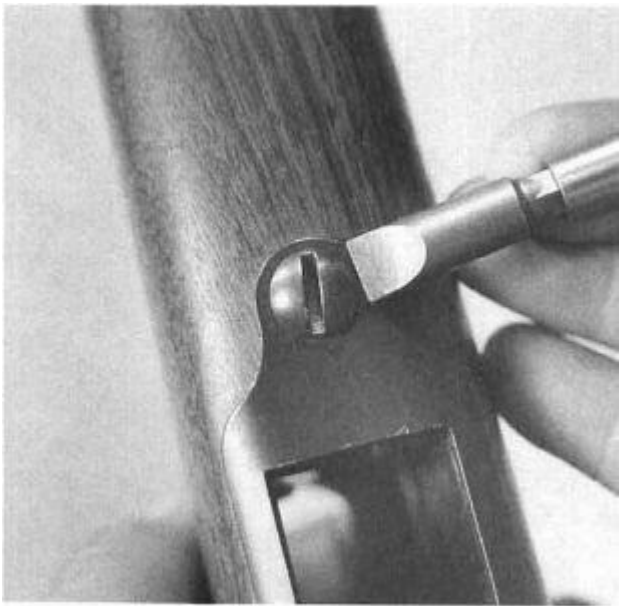


7. Insert a small screwdriver at the front of the left extractor arm, and slide it toward the rear until it can lever the arm outward just enough to clear

its recess. Pivot the extractor unit over toward the right, and take it off.

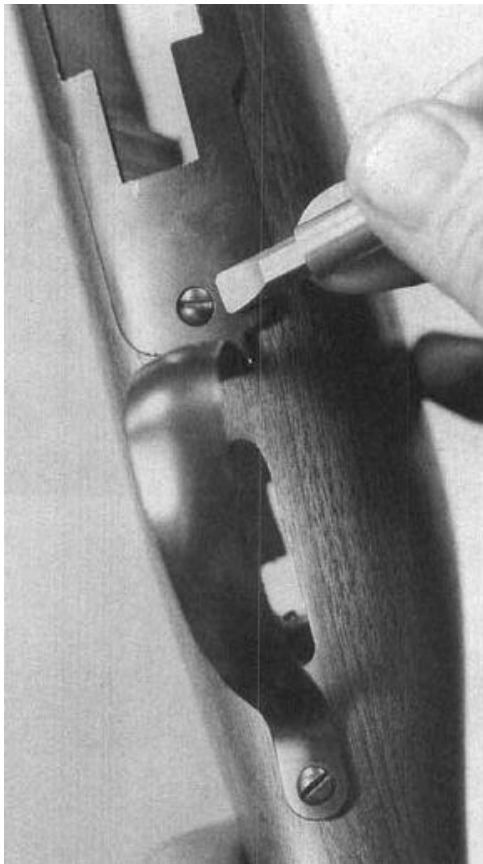
- 8.** Back out the stock mounting bolt, located in the forward tip of the magazine plate on the underside, and separate the action from the stock. Note that the magazine catch must be moved to clear as the action is taken out upward.

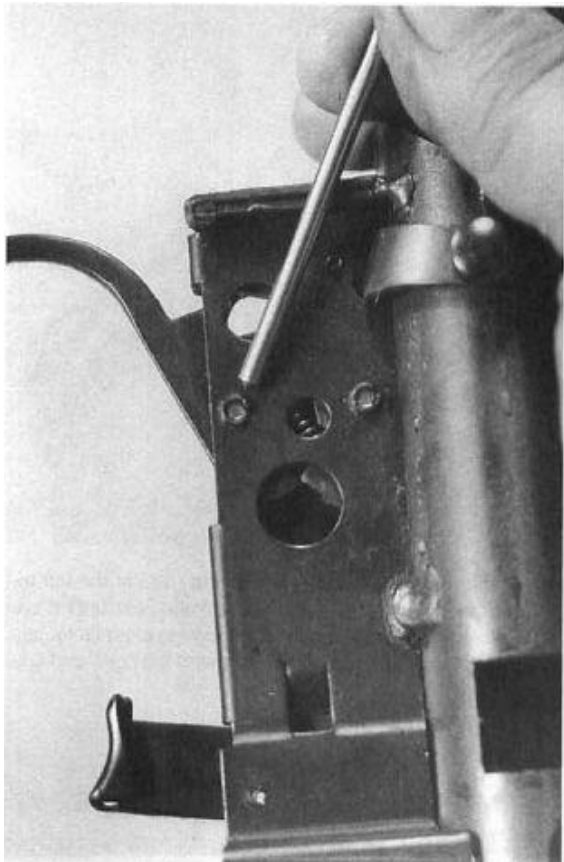




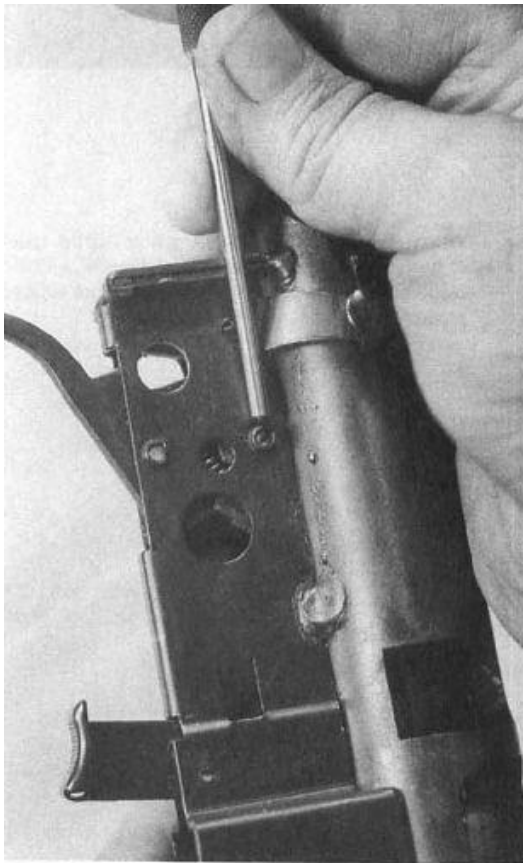
9. Removal of the two small wood screws at the front and rear of the trigger guard will allow the guard/magazine plate to be

taken off downward.



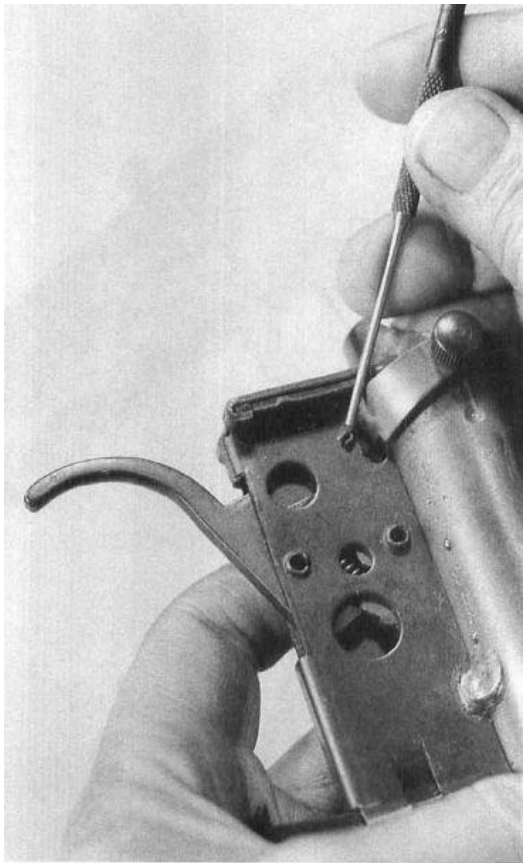


**10.** Drifting out the large roll cross pin at the lower rear of the trigger housing will allow removal of the trigger and the combination trigger and sear spring downward. Note that the trigger/magazine housing is welded to the receiver, and is not removable.

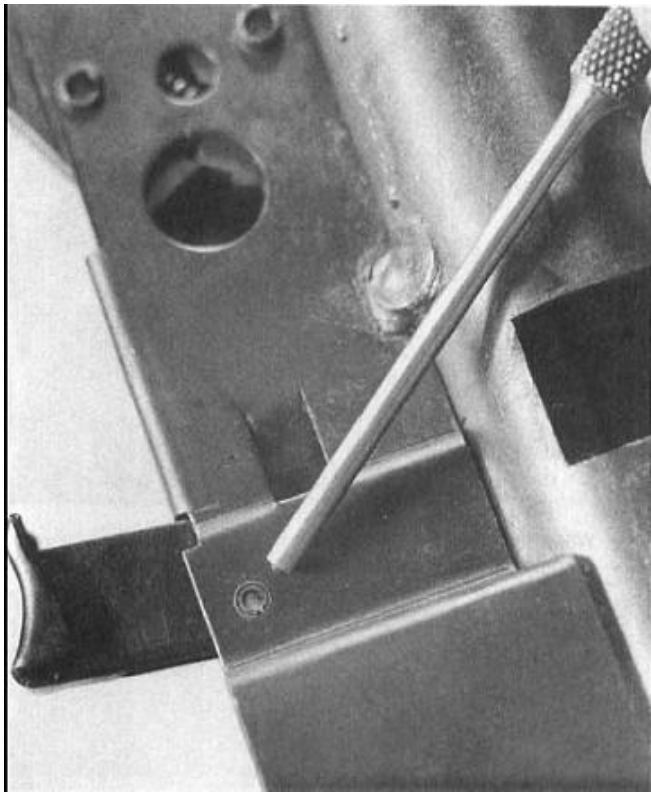


**11.** After the trigger and the spring are removed, drifting out the upper roll cross pin will release the sear for removal downward and toward the rear.

**12.** Drifting out the small pin at the upper rear of the trigger housing will allow removal of the safety-lever toward the right and upward, and the safety blade and blade spacer downward and toward the front.



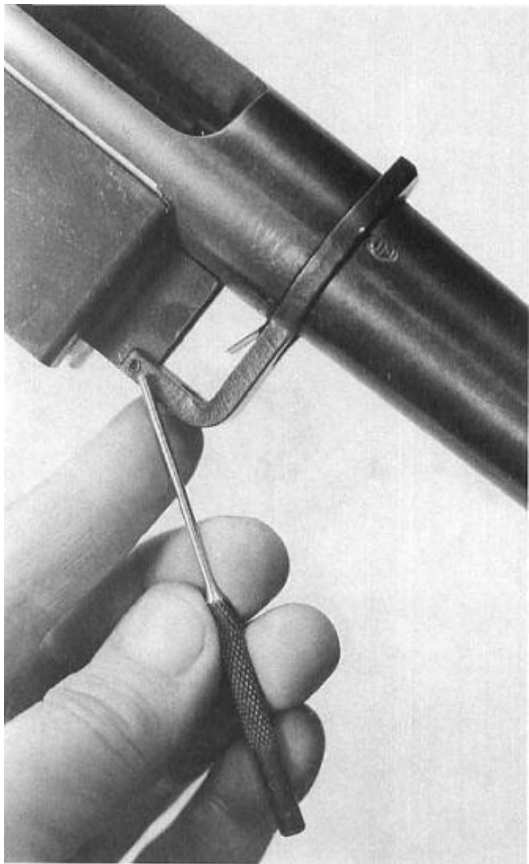




**13.** Drifting out the roll cross pin behind the magazine well will allow removal of the magazine catch downward. The magazine catch spring is a tempered arm of the catch, and is not removable.

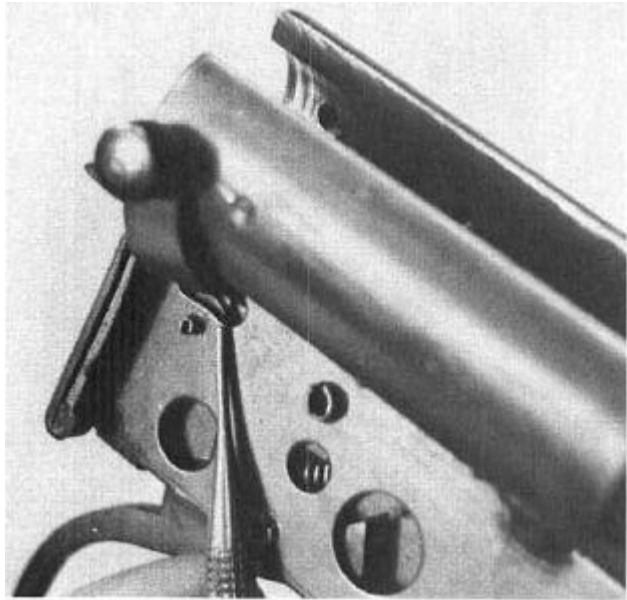
**14.** The barrel is threaded into the receiver at the front, and there is a spring-steel spacer plate or washer between the barrel collar and the receiver. The collar is attached to the front of the magazine housing by a small roll cross pin. In normal

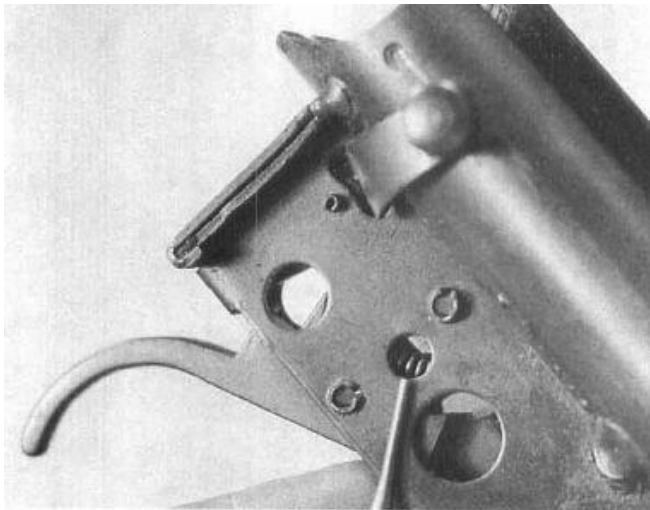
disassembly, the barrel is best left in place. If removal is necessary, care must be taken not to deform the receiver and trigger/magazine housing.



# Reassembly Tips:

1. When replacing the safety system, note that the spacer goes on the right side of the safety-lever, and the blade goes on the left. Be sure the parts are aligned properly before inserting the cross pin.



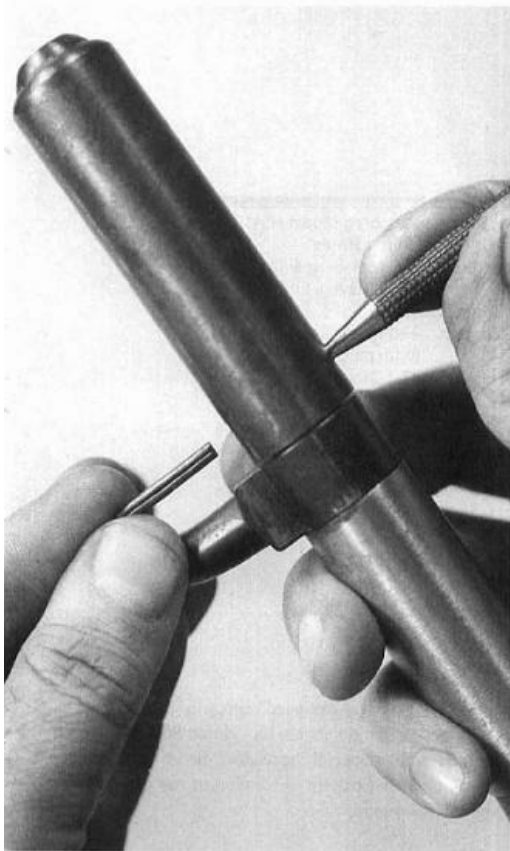


2. When replacing the combination sear and trigger spring, note that it angles upward toward the front, and should be visible in the large hole on the right side of the housing, as

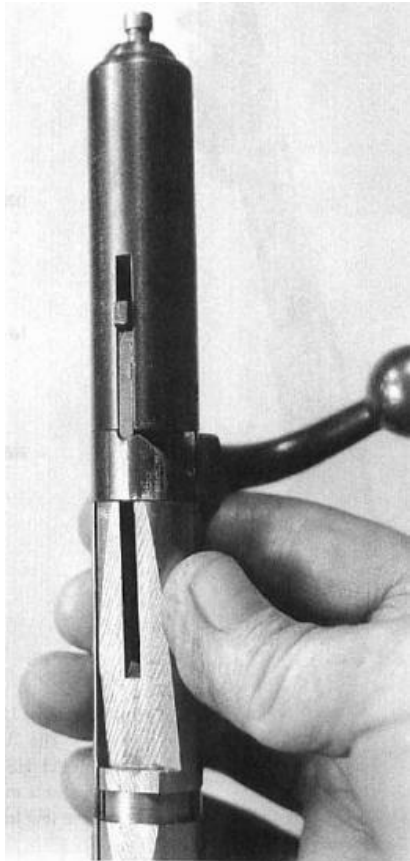
shown.

3. Before replacing the rear section of the bolt, be sure the striker is in the full forward position, as shown, and take care that the holes in the rear section, front section, and striker are aligned before replacing the cross pin.





4. Before the bolt can be reinserted in the receiver, the striker must be in the cocked position, as shown. Grip the front of the bolt, and turn the bolt handle counterclockwise (rear view), until the striker lug is on its detent notch.



# Mossberg Model

HS410



**Data:** Mossberg Model  
HS410

**Origin:** United States  
O.F. Mossberg 81  
Sons, North  
Haven,  
Connecticut

**Manufacturer:**

**Gauges:** 410

**Magazine  
capacity:** 4 rounds  
(with plug  
removed)

**Overall  
length:** 37-1/2 inches

**Barrel length:** 18-1/2 inches

**Weight:** 6 1/2 pounds

Introduced in 1990, this little Mossberg was designed especially for home defense. The "HS" in the model designation stands for "Home Security." The Model HS410 is equipped with a special "spreader" device at the muzzle for a maximum close-range shot pattern. A version of the gun is available that has a laser sight in the forend.

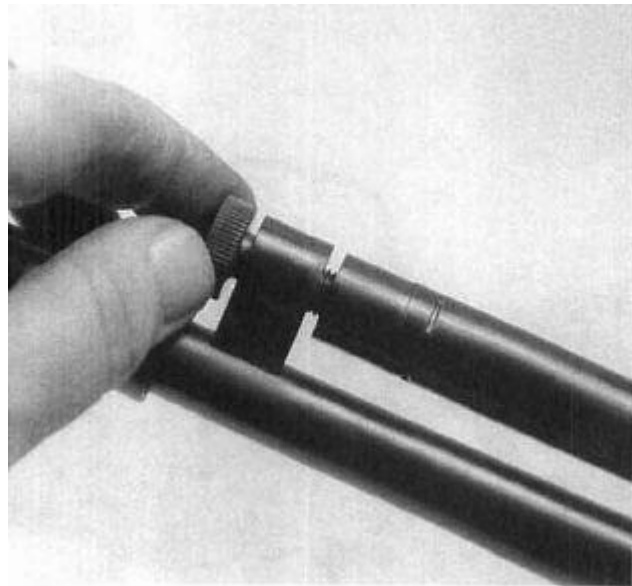
# Disassembly:

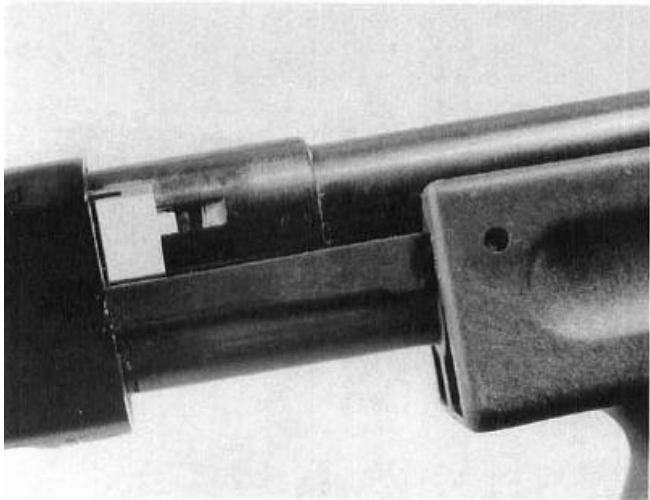
1. Open the action, then move it forward until the front of the bolt is midway in the ejection port.



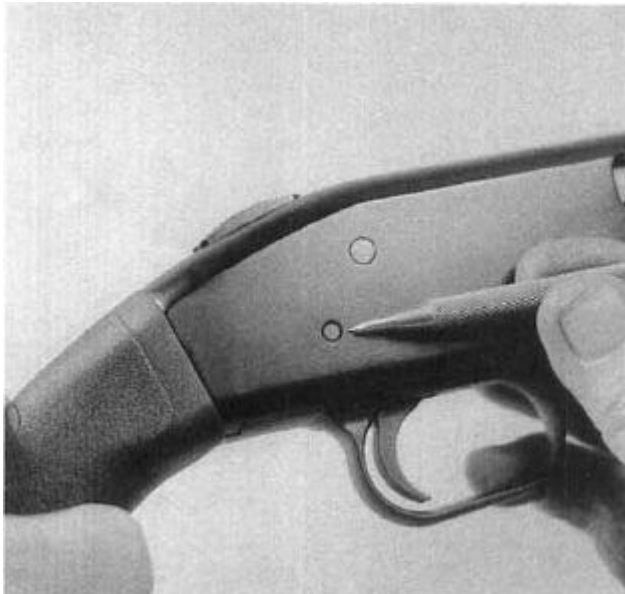


2. Unscrew the knurled knob at the front of the magazine tube until its threads are cleared.



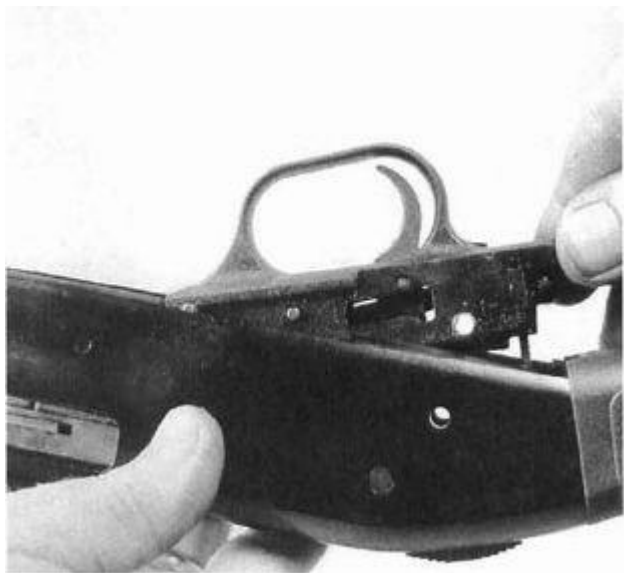


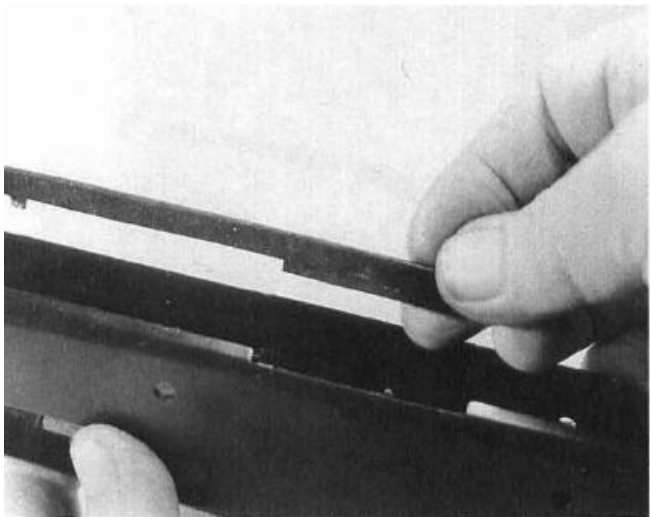
**3.** Remove the barrel toward the front.



4. Use a non-marring tool of the proper diameter to push out the trigger group retaining cross pin.

5. Tip the trigger group downward at the rear, and remove it downward.

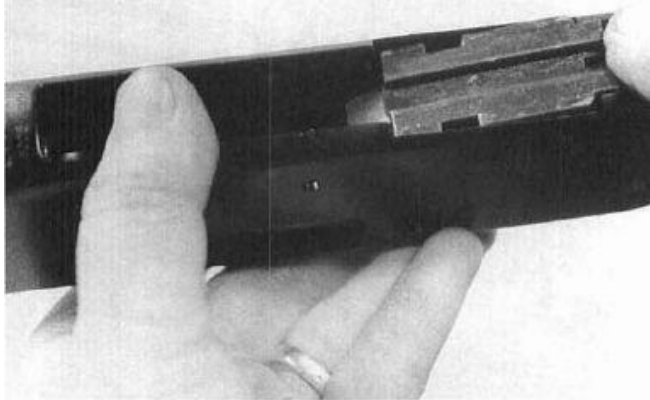




6. Removal of the trigger group will release the shell stops inside the receiver. Move the right shell stop inward and take it out.

7. Remove the left shell stop from the receiver.

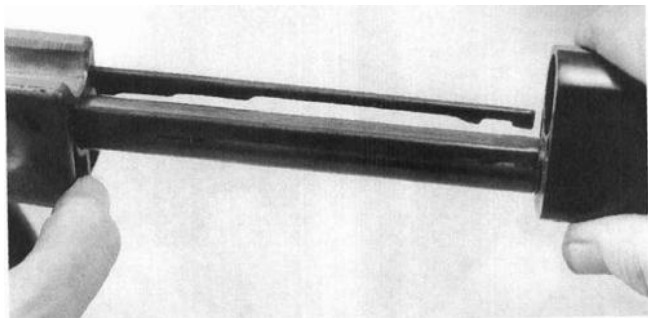


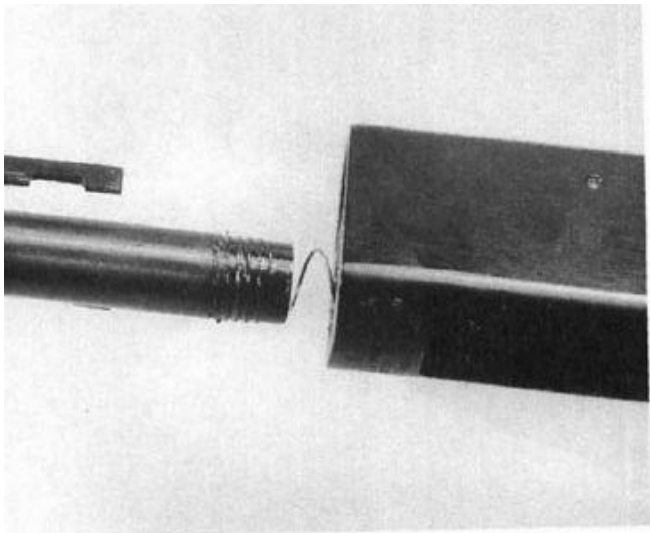


- 8.** Move the action slide rearward until the wings of the bolt slide piece align with the exit cuts inside the receiver, and remove the bolt slide plate.

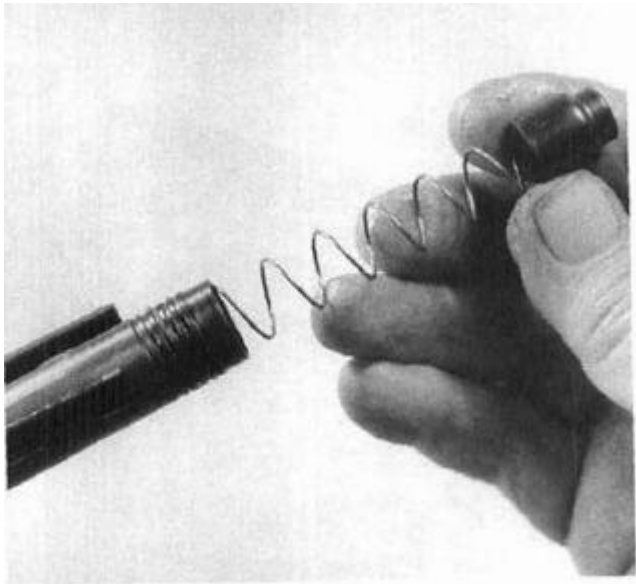


**9.** Move the action slide assembly forward until it stops.



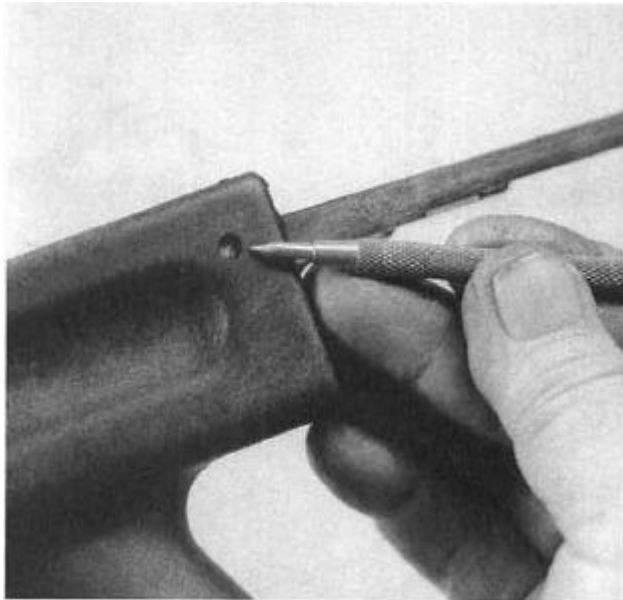


**10.** Unscrew the magazine tube from the receiver, and take it off toward the front.

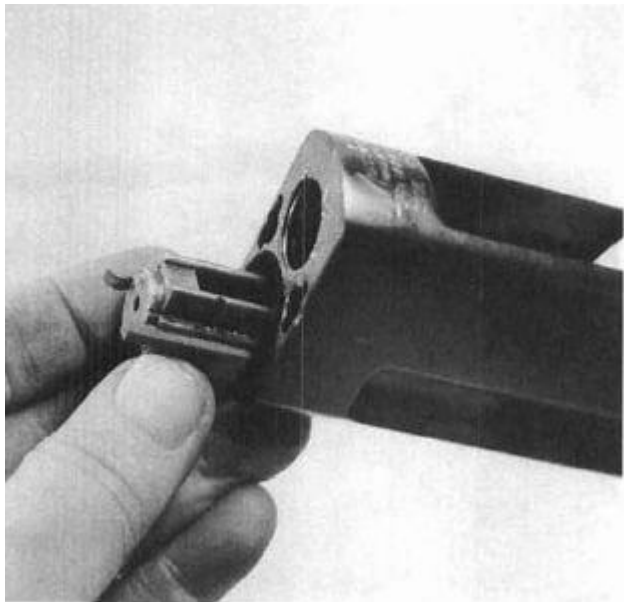


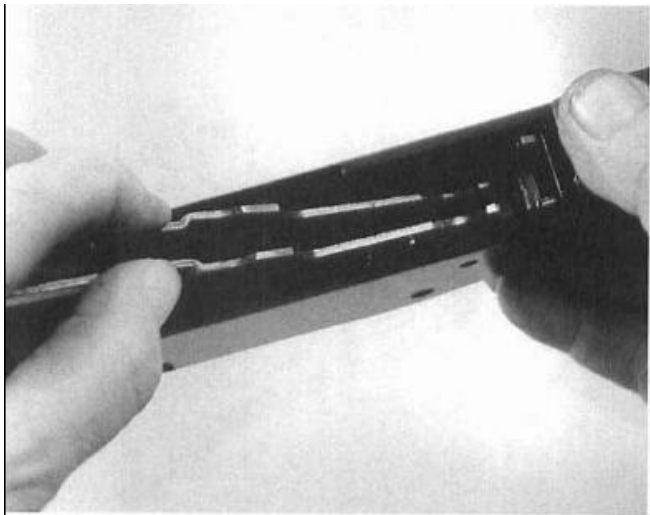
**11.** Remove the magazine spring and follower from the magazine tube. Take off the action slide rearward.

**12.** A cross pin in the fore-grip retains the action slide bars. Unless removal is necessary for repair, this assembly is best left in place.

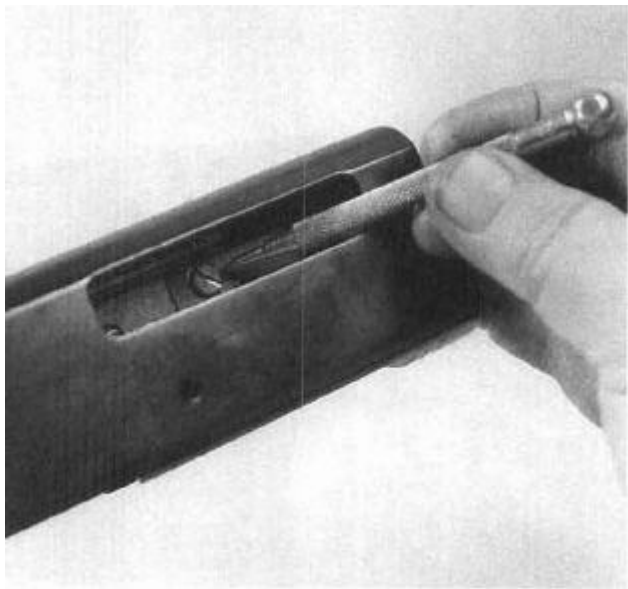


**13.** Remove the bolt toward the front.





14. With the safety in the on-safe position, swing the carrier out, and gently squeeze its arms together to withdraw the pivots from the receiver for removal.



**15.** The shell guide and ejector are retained inside the receiver by a single screw, with the shell



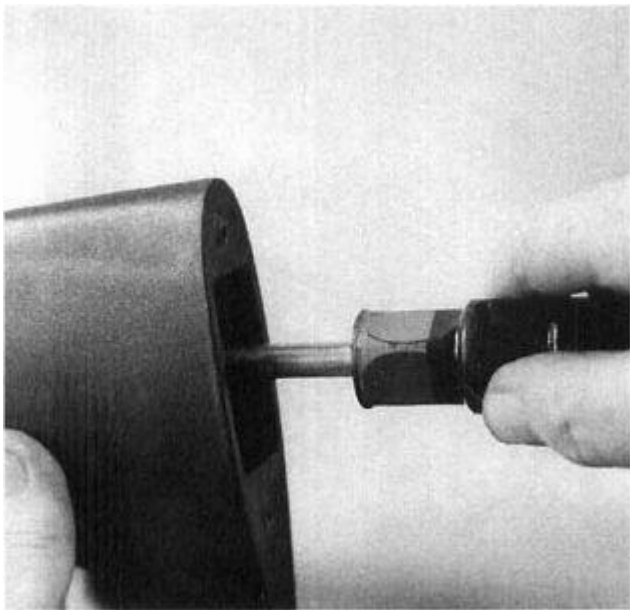
guide next to the screw head. If removal is not necessary for repair, these parts are best left in place.

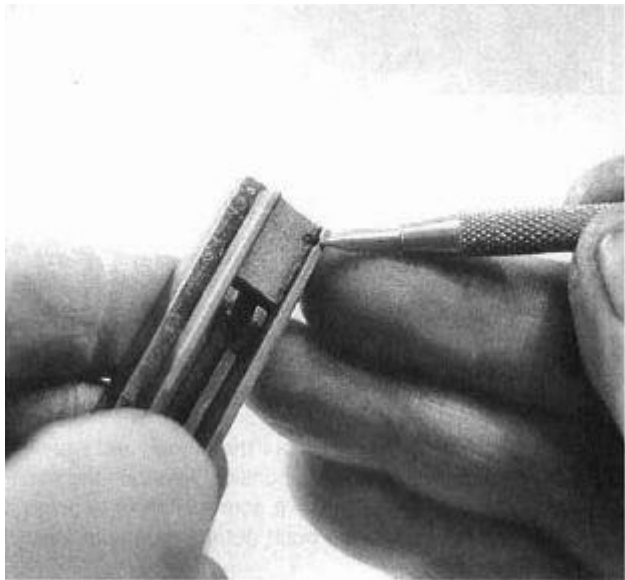
- 16.** The manual safety system is retained by a screw that has no counter-clockwise shoulders in its slot, to discourage amateur disassembly. The system consists of the screw, button, detent plate, detent ball and spring, and the safety block inside the receiver, in that downward order. For repair, return the receiver to the factory.



- 17.** Use a Phillips screwdriver to remove the recoil pad screws, and take off the pad. Use a large screwdriver to remove the stock mounting bolt, and

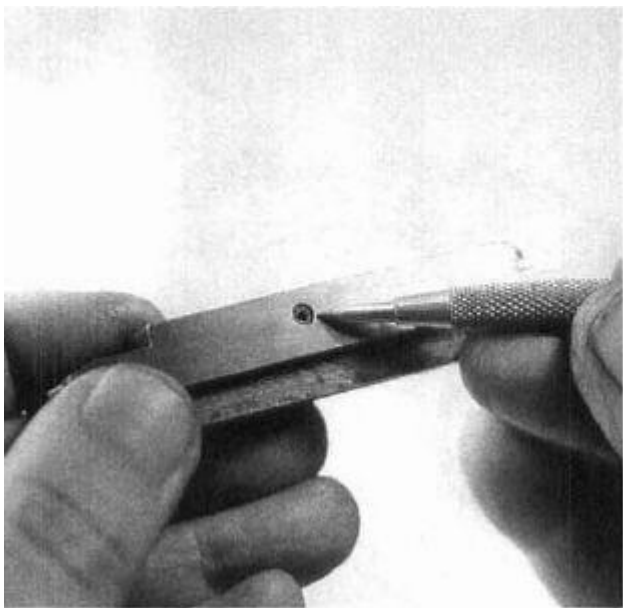
take off the stock.





**18.** A vertical roll pin at the rear of the bolt is driven out upward to release the firing pin and its return spring for

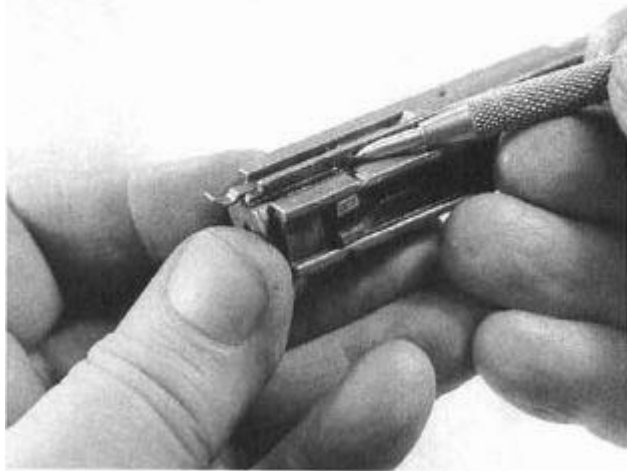
removal toward the rear.



**19.** A roll cross pin at the center of the bolt retains the locking

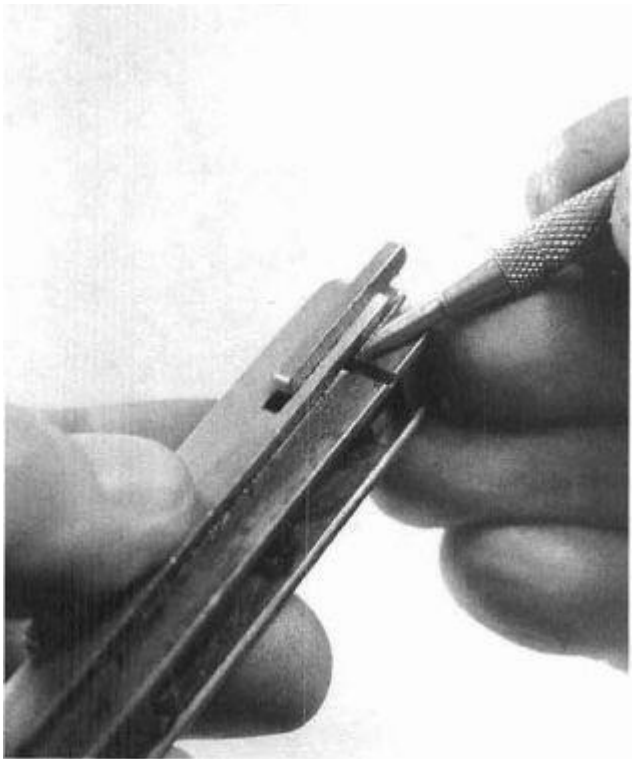
block. The pin is drifted out toward the left, and the locking block is taken out upward.

**20.** The left extractor, which is its own spring, is retained by a vertical pin which is drifted out upward.



**21.** The right extractor and its transverse coil spring are retained by a vertical pin on the right side of the bolt. The

pin is drifted out upward.







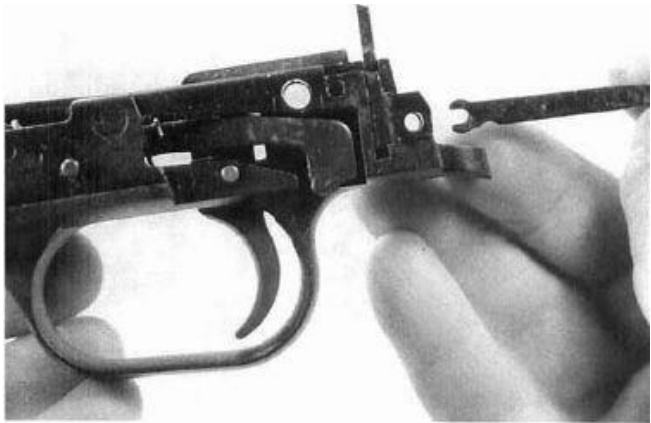
**22.** Restrain the hammer, pull the trigger, and ease the hammer down to fired position. Restrain the main-spring at the rear-use a screwdriver to depress it slightly inward-and

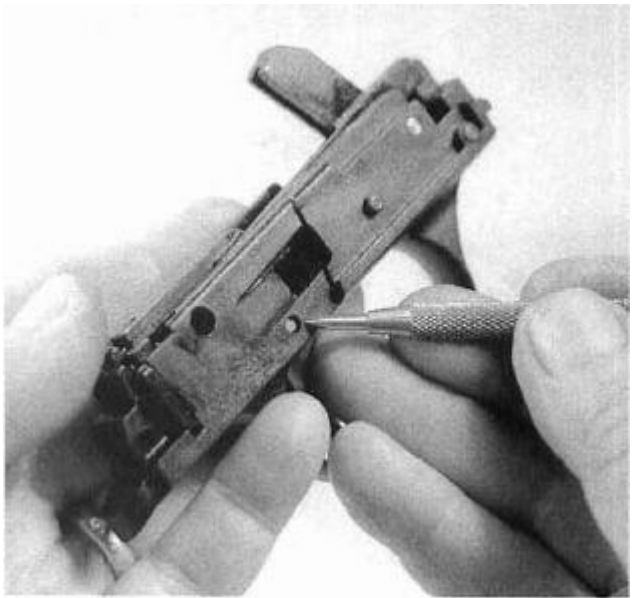
push out the cross pin toward the left.

- 23.** Remove the hammer spring and its plunger toward the rear.

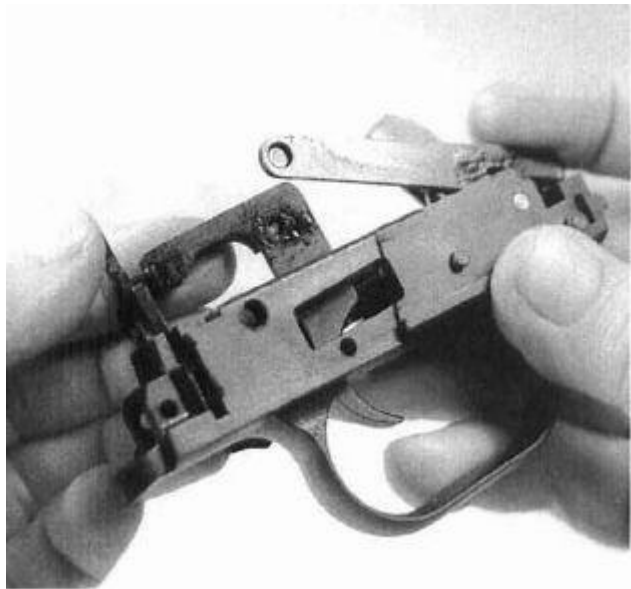


24. Remove the hammer strut toward the rear.





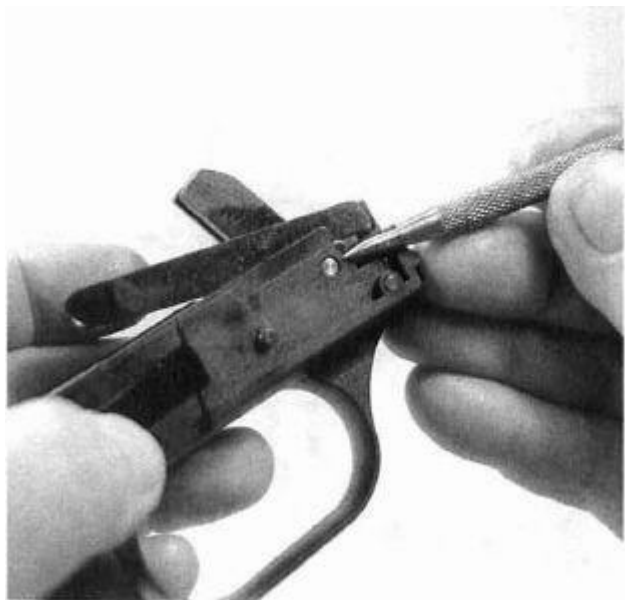
25. Push out the trigger cross pin.



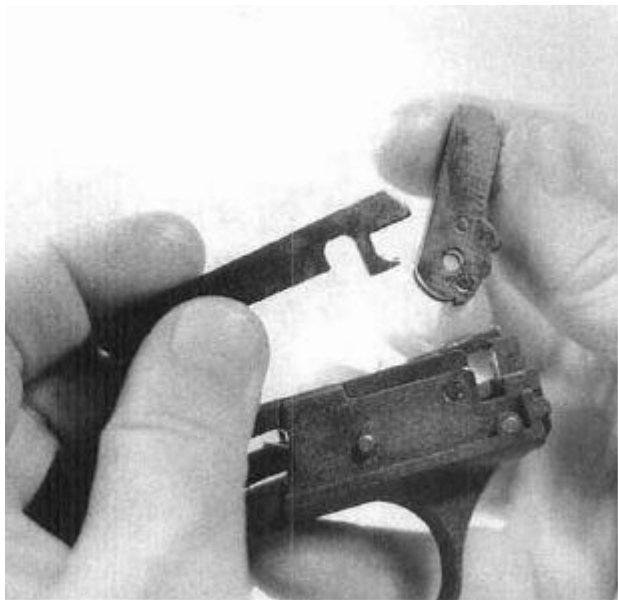
**26.** Remove the trigger and safety connector assembly upward. The connector and the trigger spring are easily detached

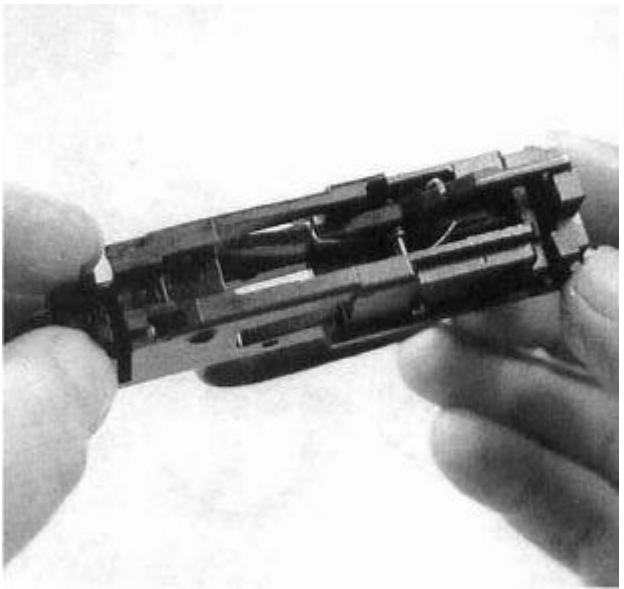
from the trigger.

**27.** Push out the hammer cross pin.



**28.** Remove the hammer and the trigger bar upward.

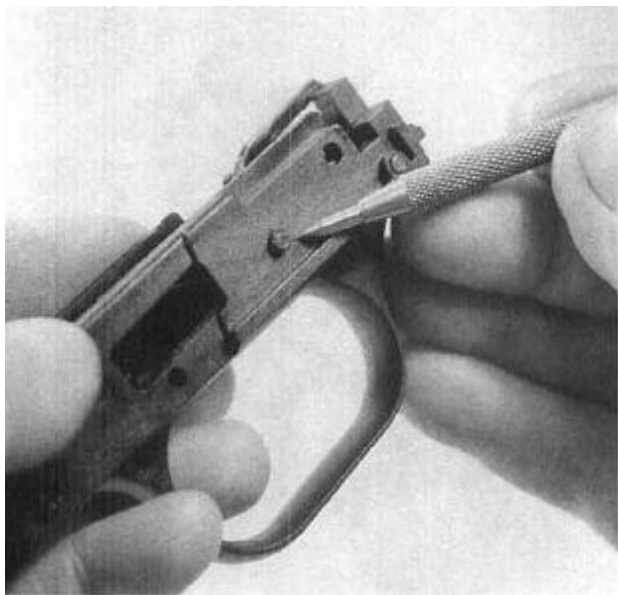




**29.** Before removing the slide latch and its attendant springs, note their relationship inside the group as an aid to

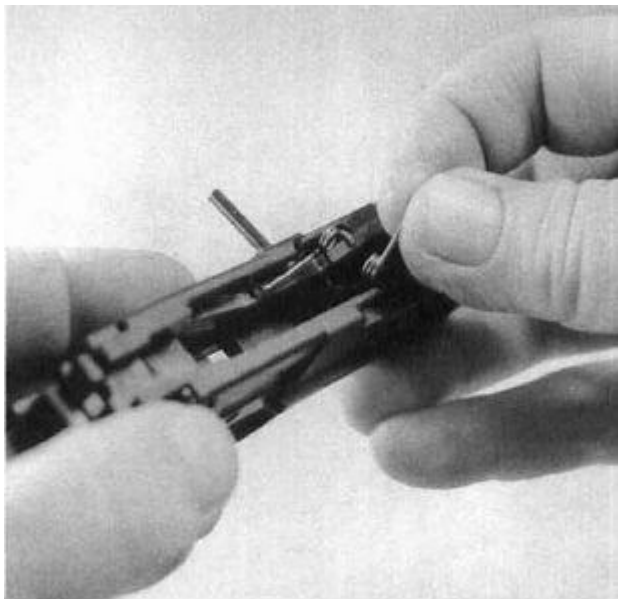


reassembly.

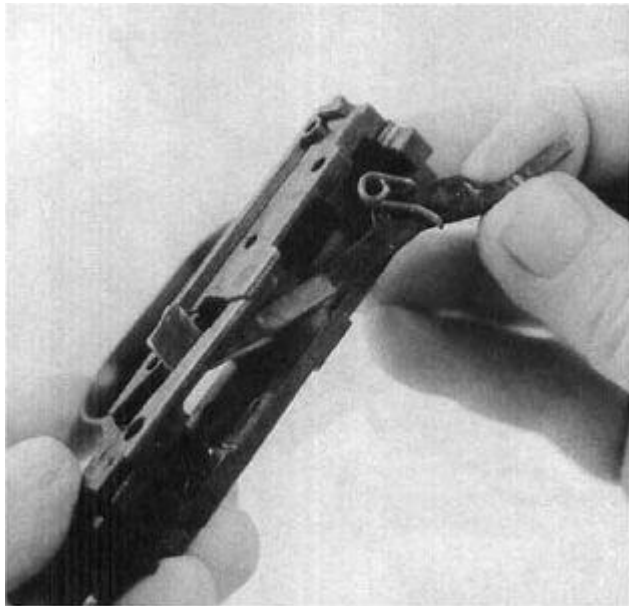


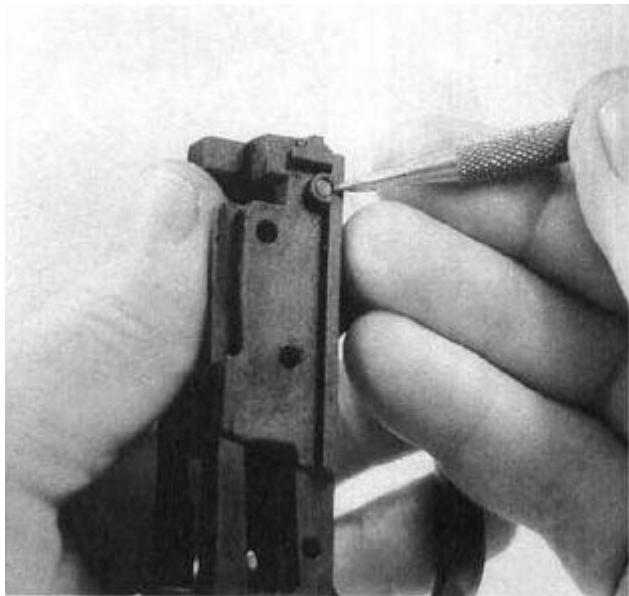
**30.** Restrain the springs, and push out the slide latch cross pin.

**31.** Remove the combination slide latch and trigger bar spring.



**32.** Move the front of the slide latch inward, and take it out upward and toward the front. The latch trip spring is easily detached from the latch.



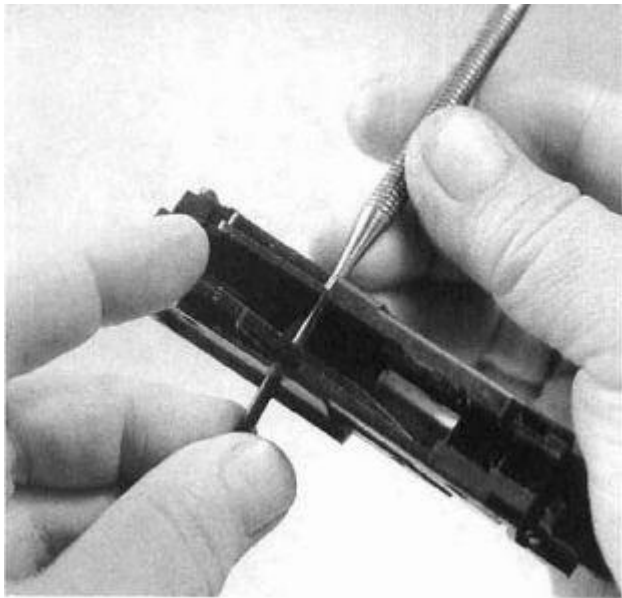


**33.** Restrain the sear spring, and push out the sear cross pin. Remove the sear and its spring upward.



# Reassembly Tips:

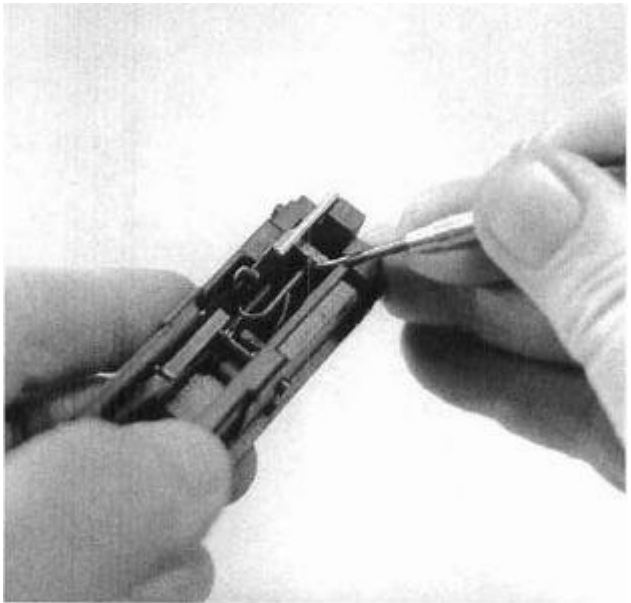
1. When replacing the slide latch and its springs, insert the cross pin from the left into the loop of the trip spring, push the slide latch down into position, and insert a drift from the right to lever the latch into alignment with the pin.

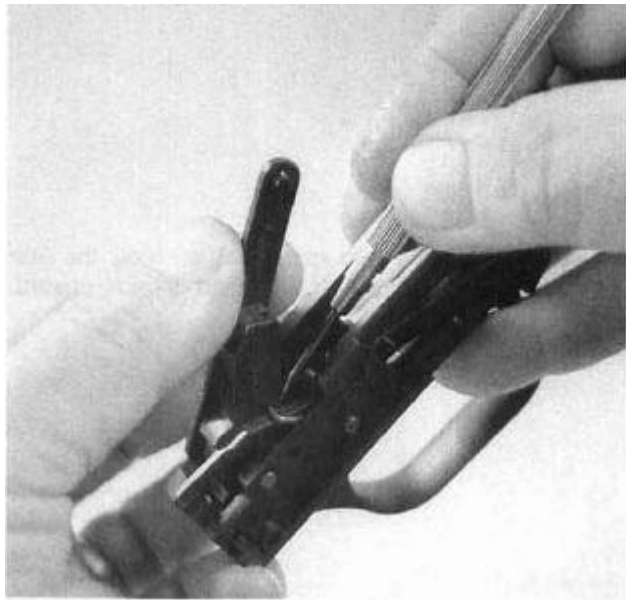


2. Before the hammer is reinstalled, insert a tool to lift the sear into vertical position, as shown. The trip arm of the



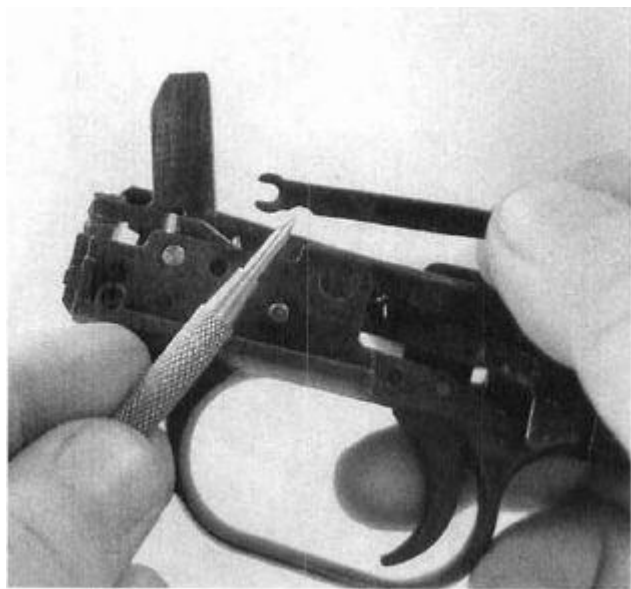
slide latch will hold the sear in position for insertion of the hammer.





**3.** When replacing the trigger bar, depress the spring beneath the bar. Once the bar is in position, the hammer pin can

be pushed through to the right.



4. When replacing the hammer strut, the small semi-circular

cut near the forward end must go on the underside, as shown. Be sure the yoke engages the upper cross pin in the hammer.

**Mossberg 395KB**



## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Mossberg Model **395KB** also apply to the following guns:

**Mossberg Model 385K**

**Mossberg Model 395K**

**Mossberg Model 395S**

**Mossberg Model 390K**

**New Haven Model 495**

**Data:** Mossberg Model  
395KB

**Origin:** United States

<b>Manufacturer:</b>	O.F. Mossberg & Sons, North Haven, Connecticut
<b>Gauges:</b>	12 only
<b>Magazine capacity:</b>	2 rounds
<b>Overall length:</b>	48 inches (with 28-inch barrel)
<b>Barrel length:</b>	26 to 28 inches
<b>Weight:</b>	7-1/2 pounds



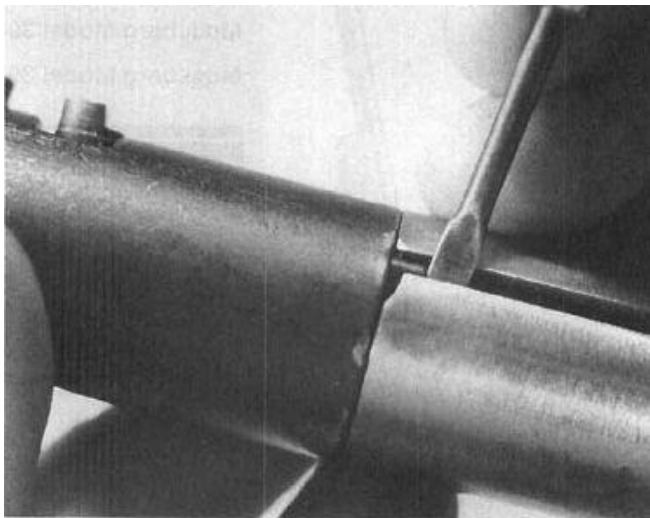
Made from 1963 to around 1985, this gun was the last version of a long line of Mossberg bolt-action shotguns. The Model 395KB has counterpart versions in 20-gauge, the Model 385K, and the 16-gauge Model 390K. The New Haven 495 was Mossberg's "house brand", and the 395K differed only in cosmetic details. They are mechanically identical, and the instructions will apply to all of these. The internal design of these guns is entirely different from the earlier bolt-action guns by Mossberg, such as the 410 shotgun, and this should be noted to avoid confusion.

# Disassembly:

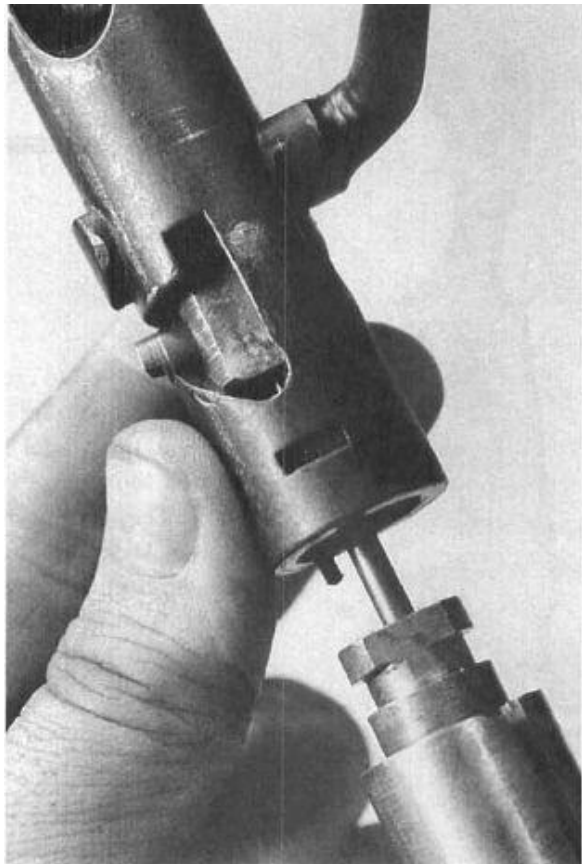
1. Remove the magazine. Open the bolt, hold the trigger pulled to the rear, and remove the bolt from the rear of the receiver.



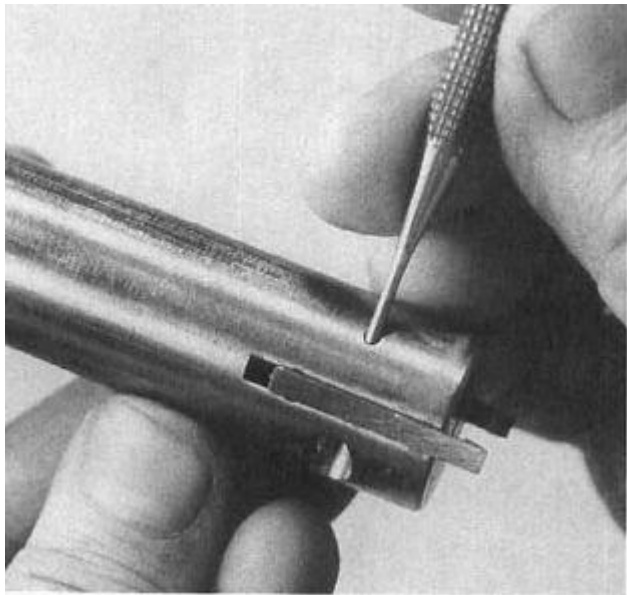
2. Use a tool to depress the bolt index plunger toward the rear, and turn the front section of the bolt clockwise (front view) about one-half turn.



- 3.** Remove the front section of the bolt toward the front.



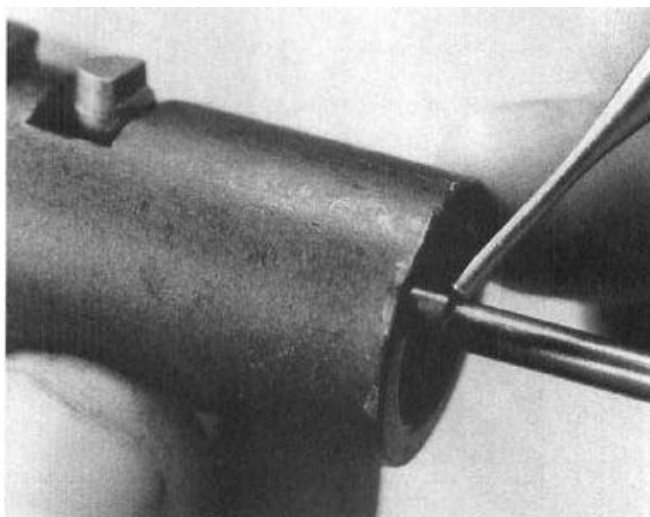
4. The extractors are retained on each side of the front section by vertical pins. The pins are driven out downward, and the extractors and their coil springs are taken off toward each side.

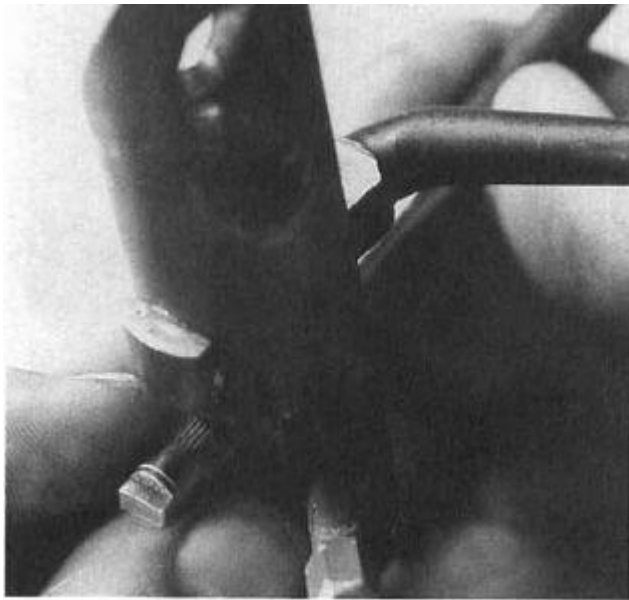


5. The bolt index plunger and its spring are staked into the front of the rear section, and they are not removed in normal



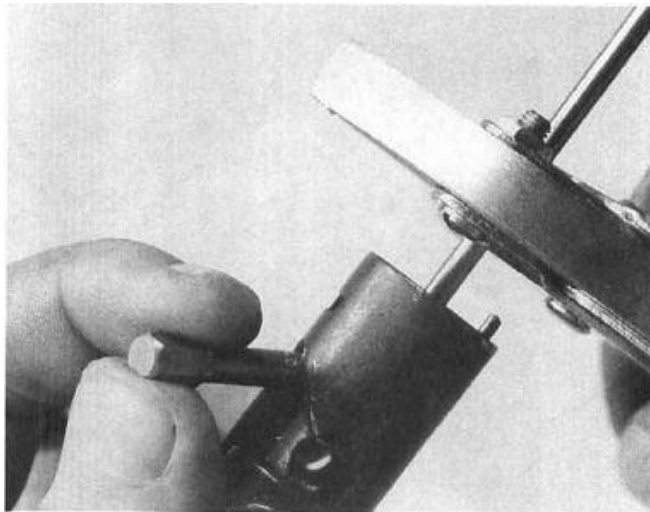
disassembly.





6. With the striker still in the cocked position, pry the striker head slightly toward the rear, and insert a tool (one

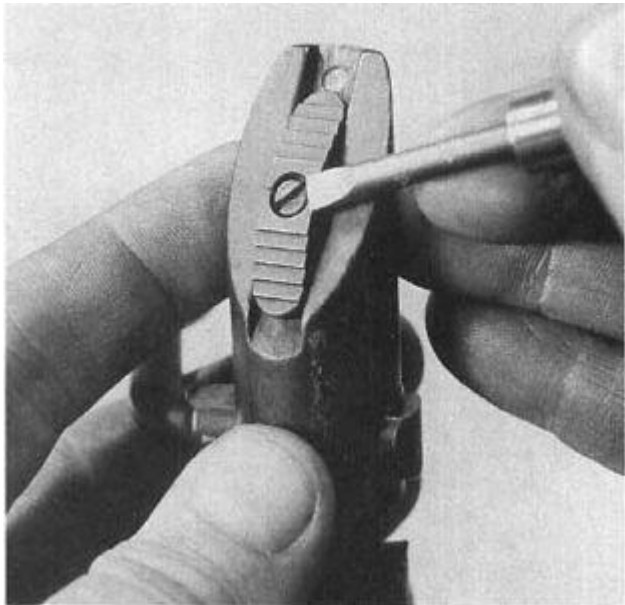
of Brownells Magna-Tip screwdriver blades was used here) to detain it and align the sear pin with the access hole on the right side of the rear section. Drive out the sear pin toward the left. The pin is splined internally for tight seating, and will require firm support for removal.



7. Grip the firing pin shaft firmly with smooth-jawed pliers, move the firing pin/striker assembly slightly toward the rear, and withdraw the tool that has retained it during the

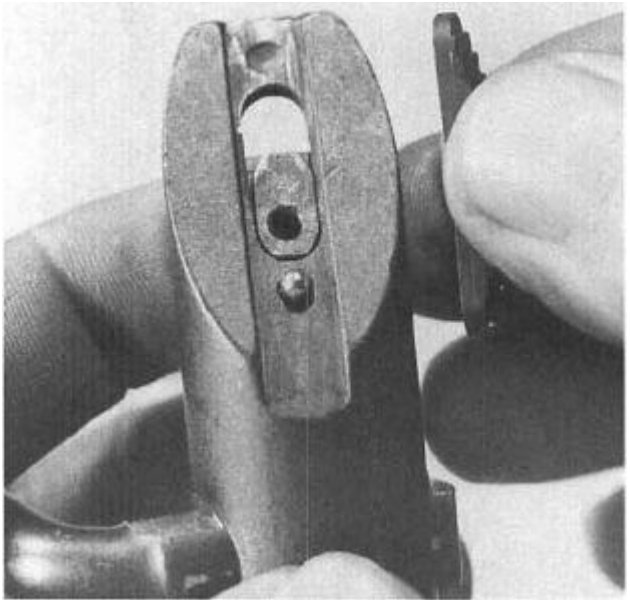
removal of the pin. Proceed with caution, the striker spring is fully compressed. Release the tension slowly, and take out the firing pin/striker assembly and its spring toward the front.

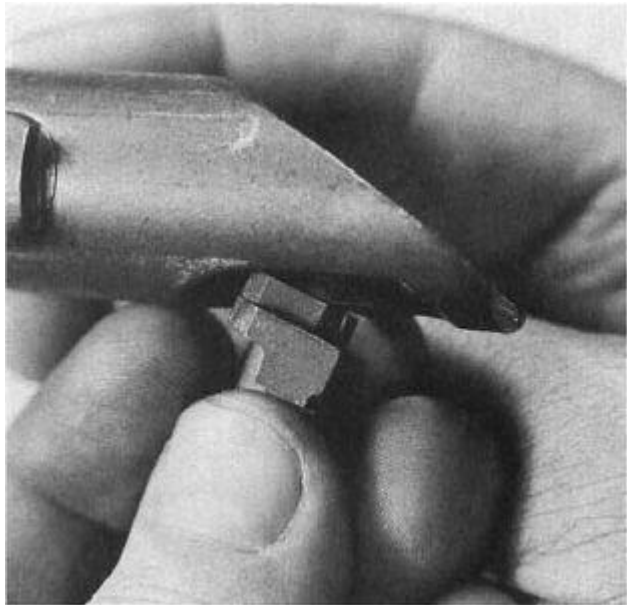
8. With the safety in either position, remove the screw at the center of the safety button.



9. Remove the safety button upward, and take off the tiny safety detent ball, taking care that this small part isn't lost.

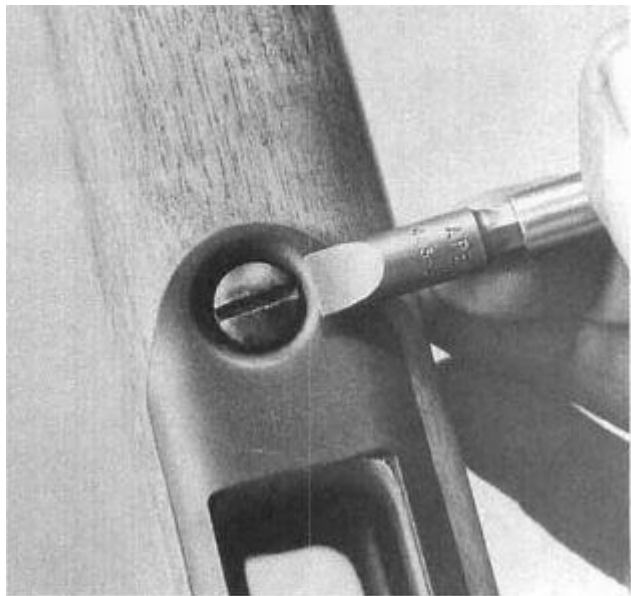
Remove the detent spring from its hole.





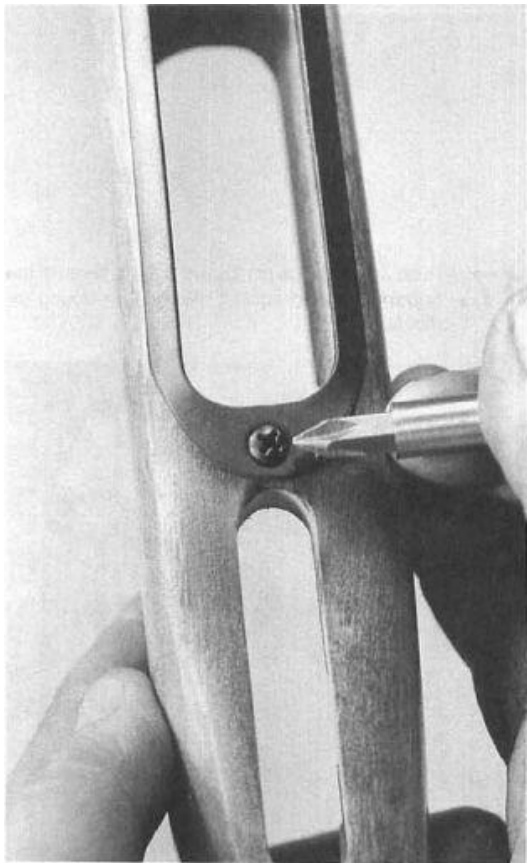
**10.** Removal of the screw will also release the safety block on the underside, to be taken off downward.





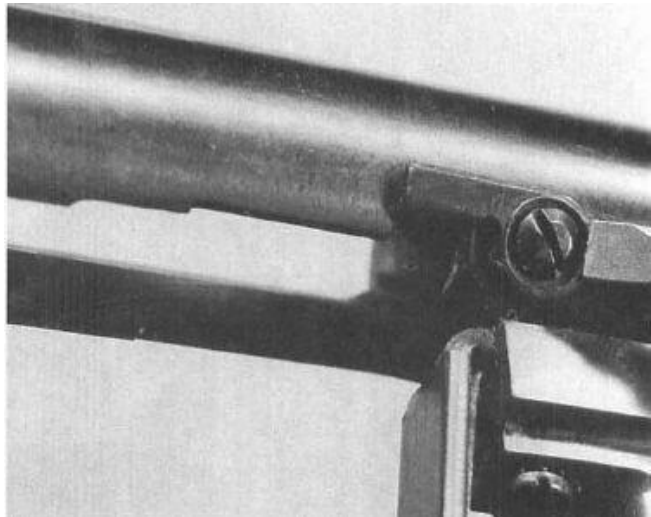
**11.** Remove the large screw on the underside at the front of the magazine plate, and separate

the action from the stock,



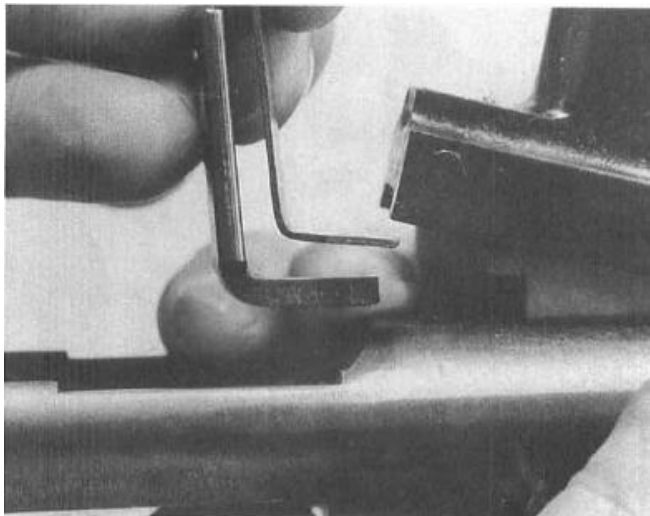
**12.** Removal of the small Phillips screw at the rear of the magazine plate will allow the plate and stock screw to be taken off downward. Note that the small screw has a flat plate-nut on the inside, and take care that this nut isn't lost.

**13.** Remove the large screw on the left side of the receiver, and take off the ejector toward the left and downward.



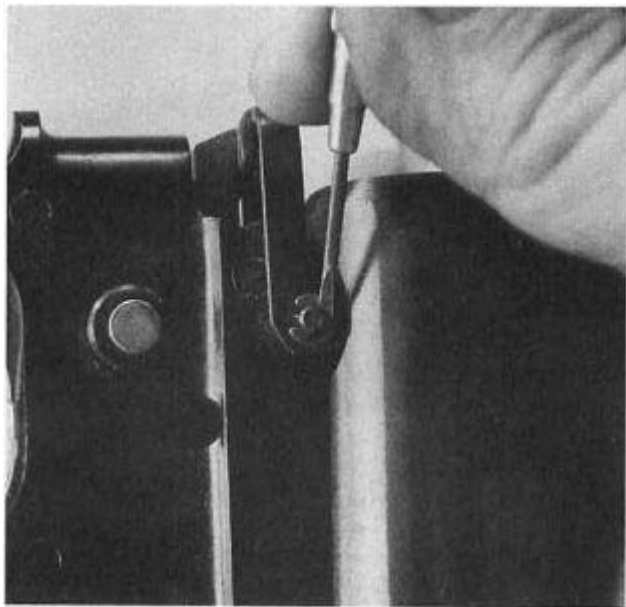


- 14.** Remove the large screw at the front of the trigger housing, downward. Note that this screw has a lock washer, and take care that it isn't lost.



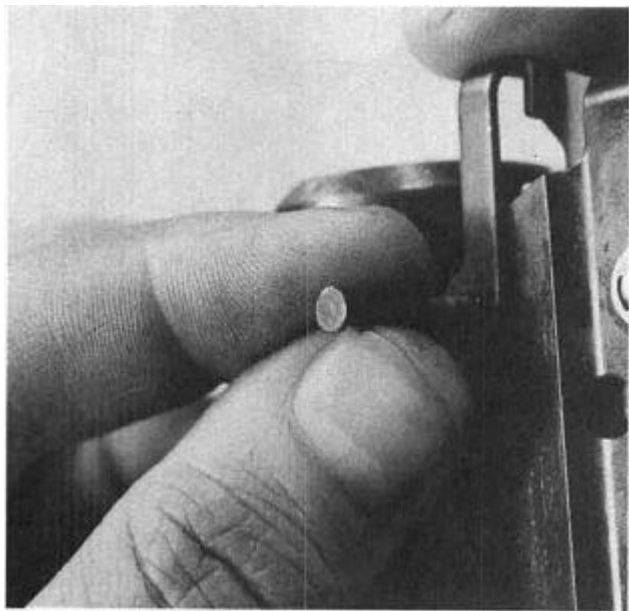
**15.** Removal of the screw will allow the housing to be tipped downward at the front, and the magazine catch and guide bar will be released for removal.

- 16.** Remove the C-clip from the right tip of the cross pin that passes through the upper rear of the trigger housing.



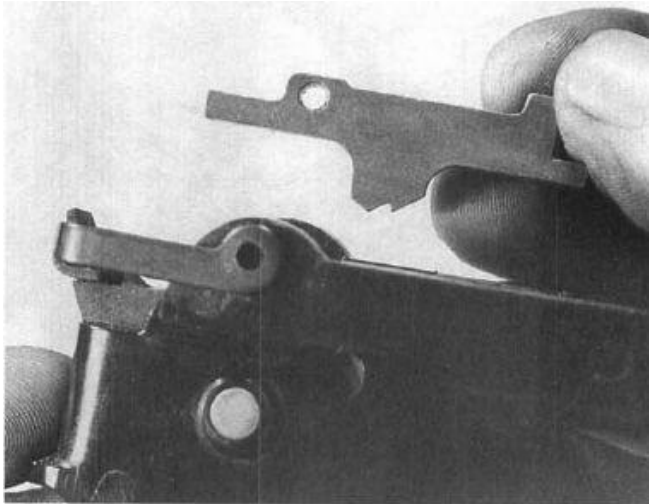


**17.** Push out the cross pin toward the left, keeping the housing pressed against the receiver during removal.



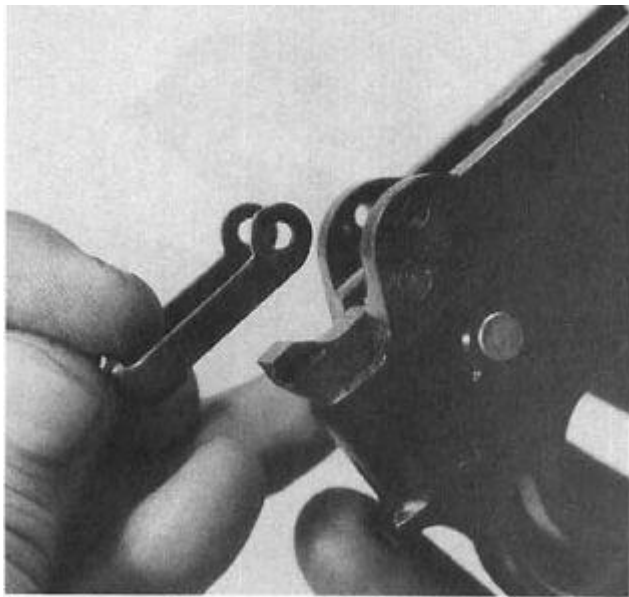


**18.** Remove the trigger housing downward.



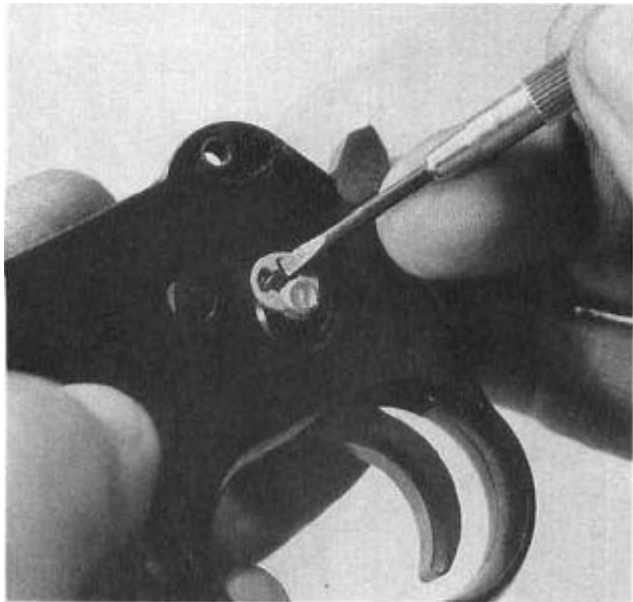
**19.** Remove the sear from the top of the housing.

**20.** Remove the safety adapter toward the rear.



**21.** Remove the sear spring from its well in the front of the trigger housing.





**22.** Remove the C-clip from the left tip of the trigger cross pin.



**23.** Remove the trigger cross pin toward the right.

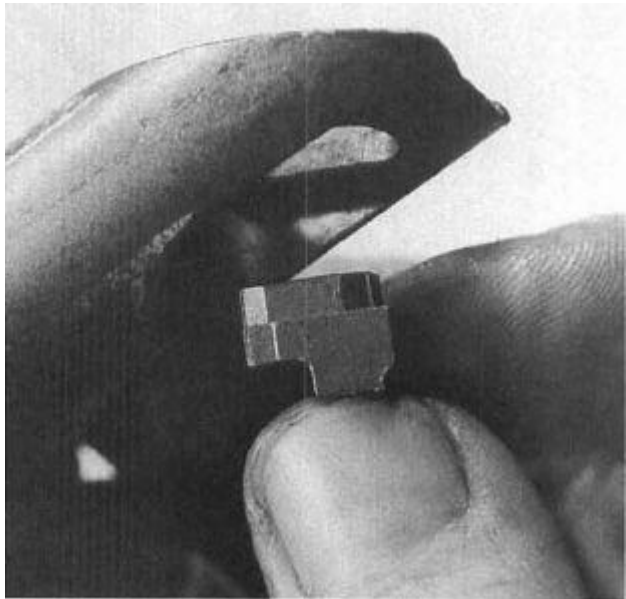
**24.** Remove the trigger upward, and take out its spring from the inside of the housing, just forward of the trigger.

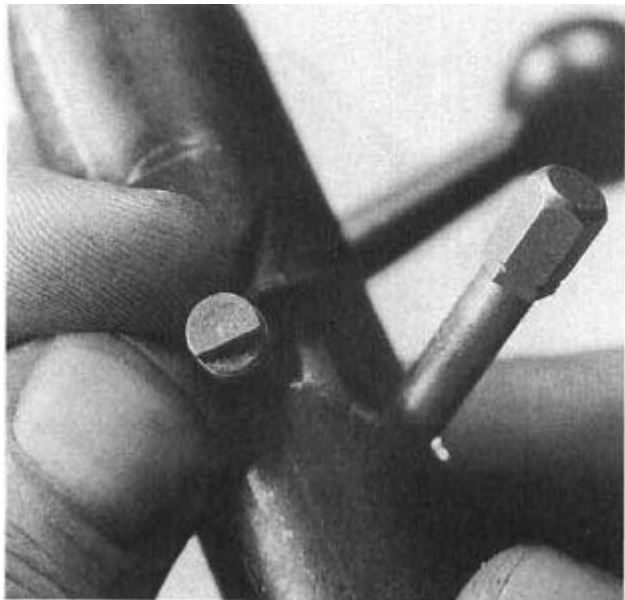




# Reassembly Tips:

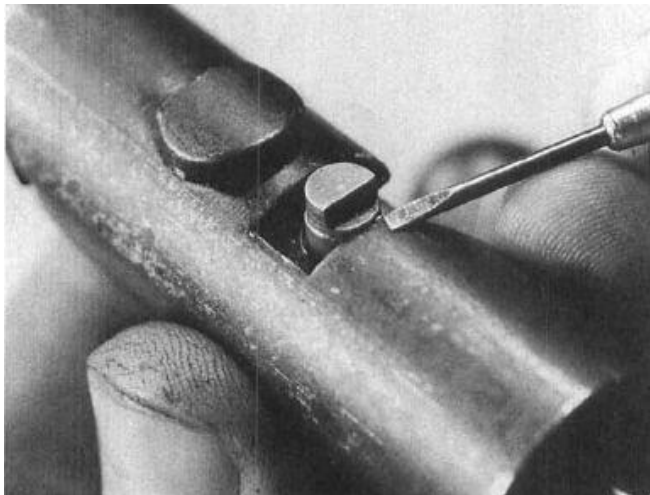
1. When replacing the safety block, be sure the block is installed with the screw hole toward the front, and the lower extension toward the rear, as shown.





2. When replacing the sear pin, note that it must be properly oriented before it is driven in, as the inner splines will not

allow it to be turned after it is installed. The "step" must be toward the front, as shown, and exactly straight across, as this part directly contacts the sear.



3. When driving in the sear pin, match the level of the front step with the side of the bolt, as shown.

# Mossberg Model

**500**



## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Mossberg Model 500 also apply to the following guns:

**Mossberg Model 500 AGVD**

**Mossberg Model 500 AHTD**

**Mossberg Model 500 ALDR**

**Mossberg Model 500 ALS**

**Mossberg Model 500 ASG**

**Mossberg Model 500 ATP8**

**Mossberg Model 500 CLD**

**Mossberg Model 500 CLS**

**Mossberg Model 500 EGV**

**Mossberg Model 500 ELR**

**Mossberg Model 500 Medallion**

**Mossberg Model 500 Trophy**

**Slugster**



**Mossberg Model 500 590**

**Mossberg Model 500 600E**

**Mossberg Model 500 AHT**

**Mossberg Model 500 ALD**

**Mossberg Model 500 ALMR**

**Mossberg Model 500 APR**

**Mossberg Model 500 ATP6**

**Mossberg Model 500 ATPSSP**

**Mossberg Model 500 CLDR**

**Mossberg Model 500 500E**

**Mossberg Model 500 EL**

**Mossberg Model 500 ETV**

**Mossberg Model 500 Security**

**Series**

**Mossberg Model 500 Mariner**

**Mossberg Model 590 Mariner**

**New Haven Model 600 AST**

# Slugster

<b>Data:</b>	Mossberg Model 500
<b>Origin:</b>	United States
<b>Manufacturer:</b>	O.F. Mossberg & Sons, North Haven, Connecticut
<b>Gauges:</b>	12, 16, 20, and 410
<b>Magazine capacity:</b>	4 rounds

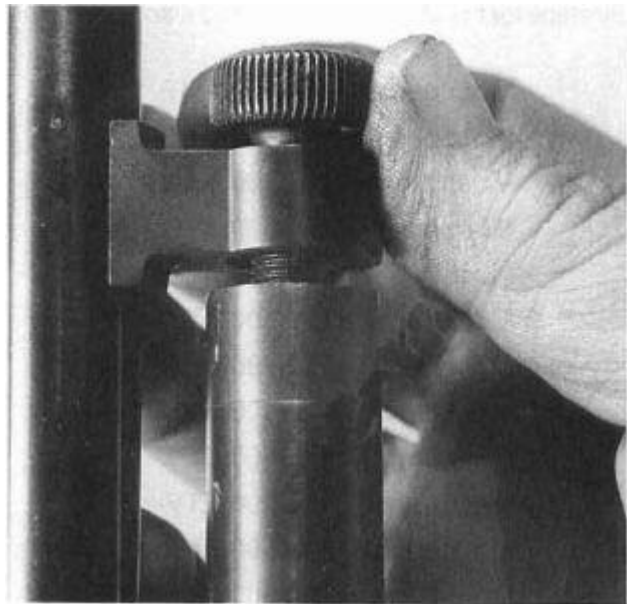
<b>Overall length:</b>	48 inches (with 28-inch barrel)
<b>Barrel length:</b>	18-1/2 to 32 inches
<b>Weight:</b>	6 to 7-1/4 pounds

Since its introduction in 1961, the Model 500 has been offered in a wide variety of sub-models, ranging from a full trap-type gun with a high rib and Monte Carlo stock to the "Slugster," a

hunting version available with an 18 112-inch barrel. The Model 500 series of guns is still in production, and variations have been made for several large retail firms bearing their brand names. All of these guns are mechanically identical, and the instructions will apply.

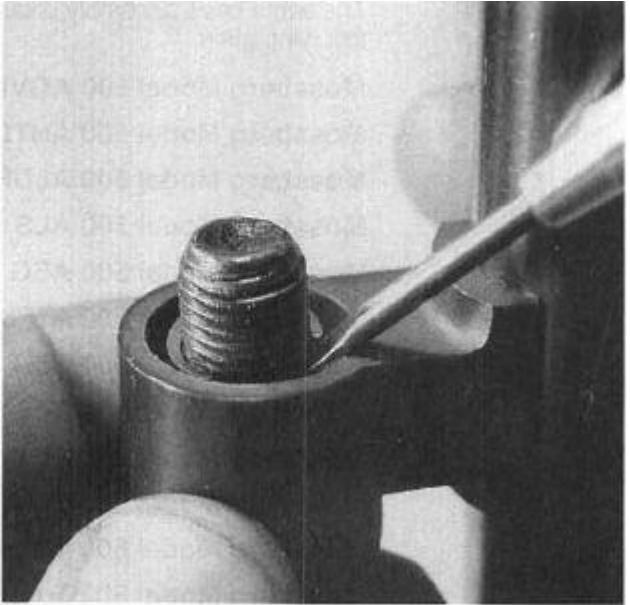
# Disassembly:

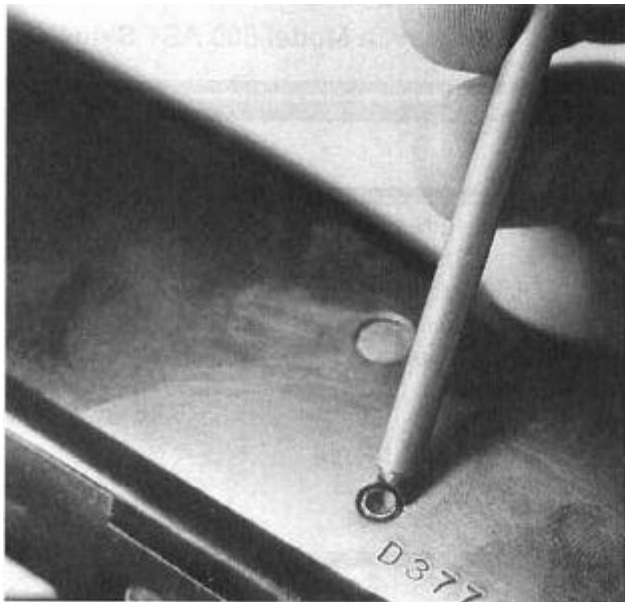
1. Open the action, and unscrew the takedown knob, located at the front of the forend, until it stops. Remove the barrel toward the front.



2. If necessary, the knob can be removed by inserting a tool inside the rear of the barrel loop to immobilize the C-clip.

The knob can then be  
unscrewed and taken off  
toward the front.





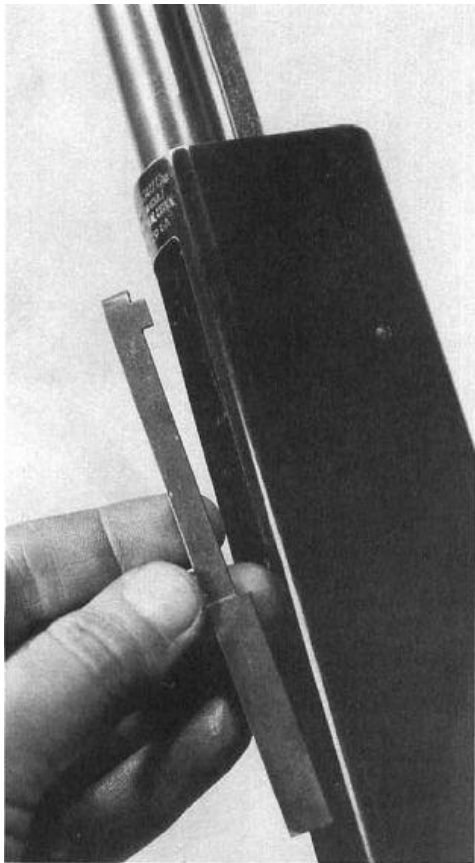
3. Move the bolt back to its forward position, and push out the cross pin at the lower rear of the receiver.



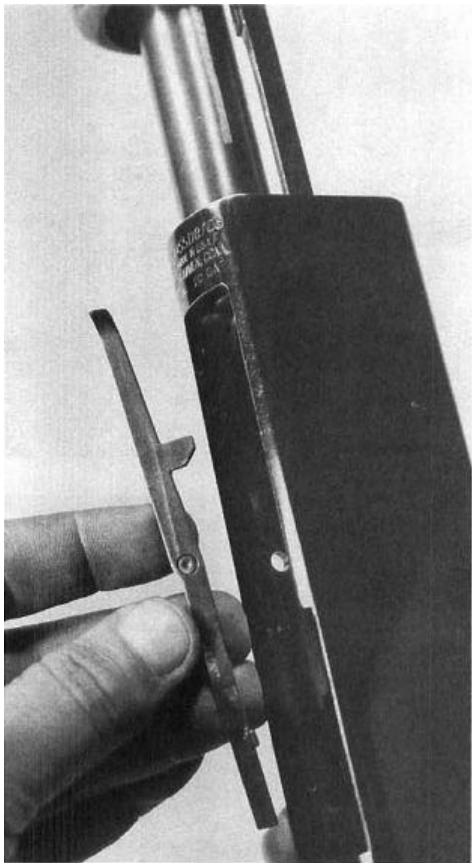




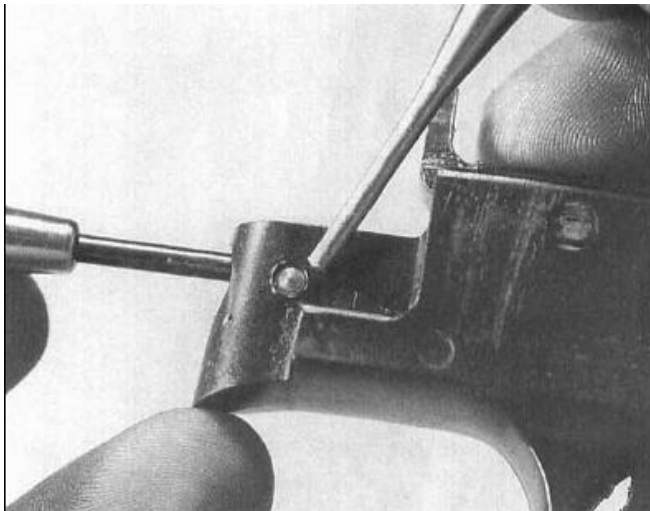
4. Remove the trigger housing downward.
5. Removal of the trigger group will release the right and left shell stops for detachment from their recesses inside the receiver. The left shell stop will usually fall free as the trigger housing is removed, and can be taken out downward.



6. Move the right shell stop inward, withdrawing its post from the wall of the receiver, and take it out downward.

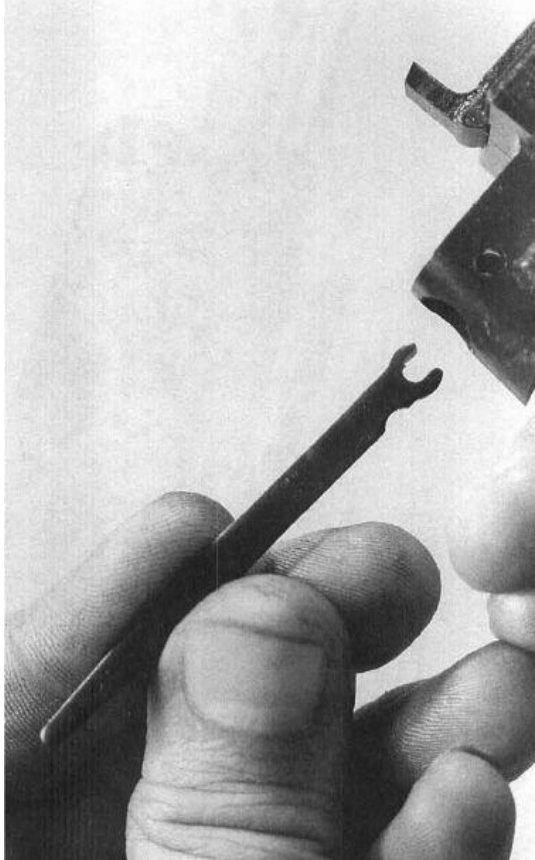


7. Restrain the hammer, pull the trigger, and ease the hammer down to the fired position. Insert a tool at the rear of the housing to slightly depress the hammer spring, and push out the cross pin at the rear of the housing. The spring is under some tension, so control it. Remove the hammer spring and follower toward the rear.



**8.** Remove the hammer strut toward the rear.





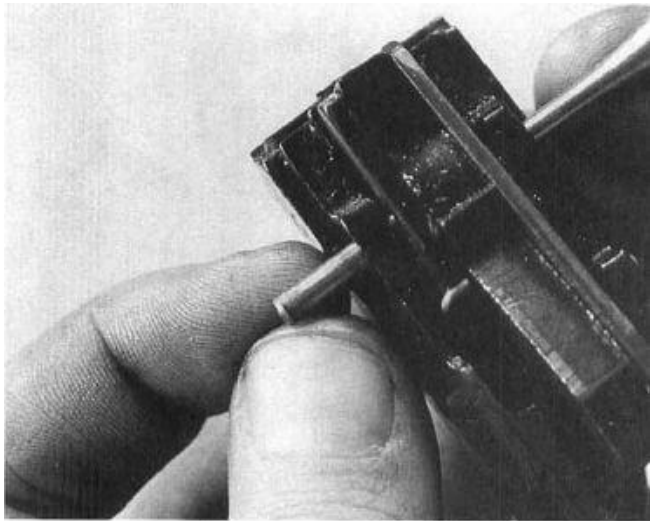


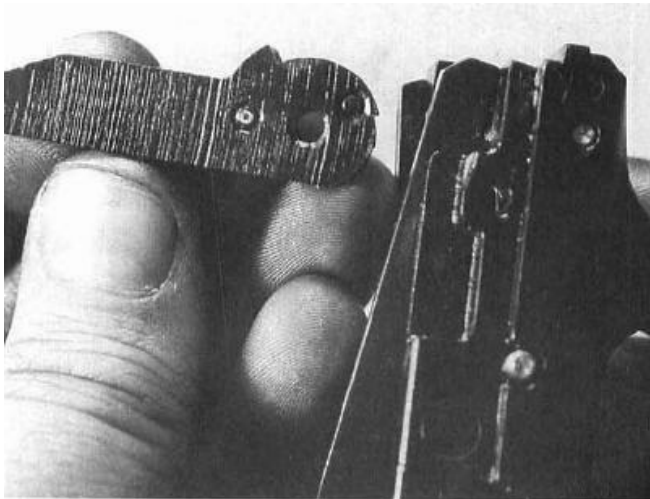
**9.** Push out the trigger pin.



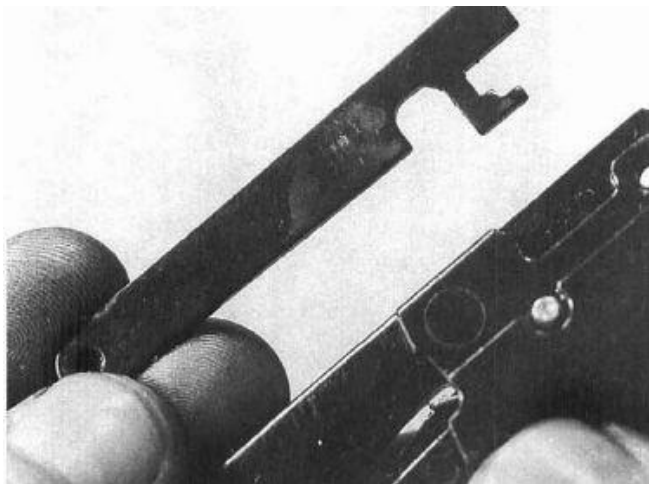
**10.** Remove the trigger and its spring upward, disengaging it from the rear tip of the disconnecter.

**11.** Push out the hammer pivot toward the left.





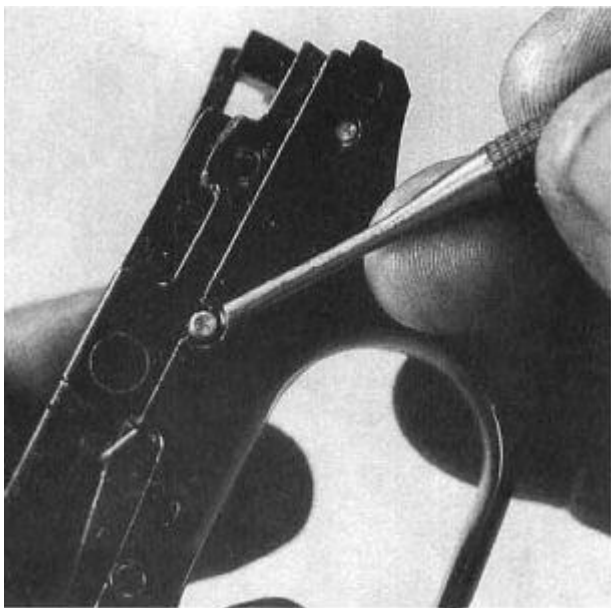
- 12.** Remove the hammer upward. Note that the two cross pins in the hammer are bearing pins, and their removal is not necessary in normal disassembly.



**13.** Move the disconnect toward the rear, then remove it upward.

**14.** Push out the slide latch pivot

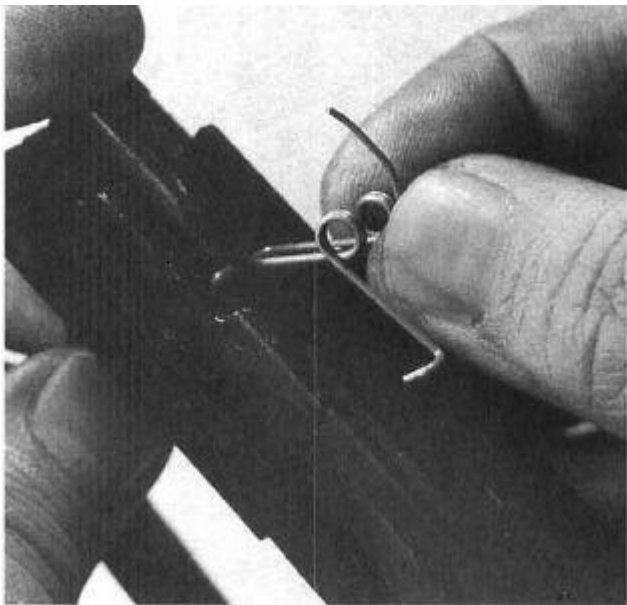
pin toward the left.

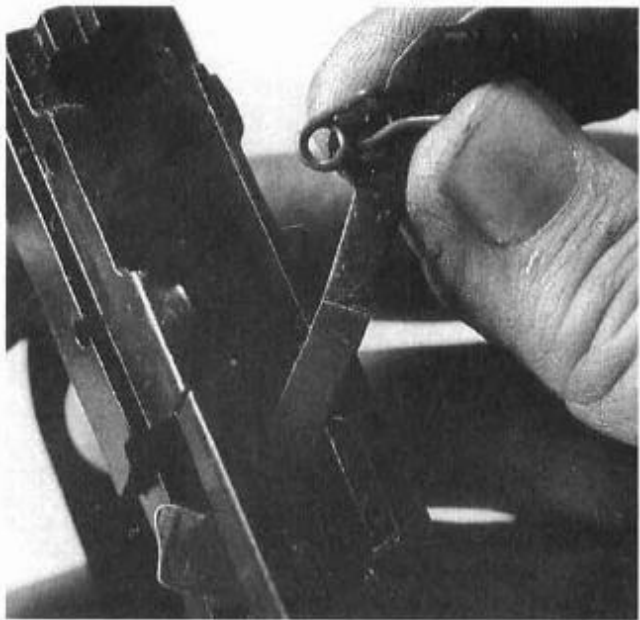


**15.** Remove the combination disconnecter and slide latch



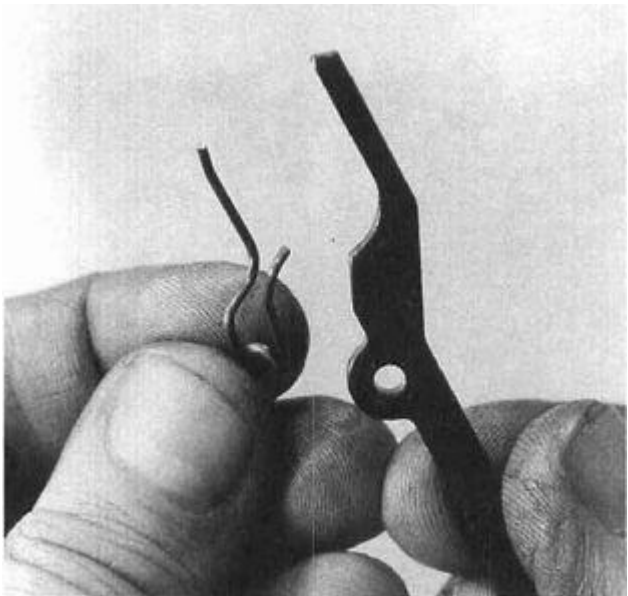
spring upward.





**16.** Lift the slide latch at the front, swing it over toward the right and remove it from the

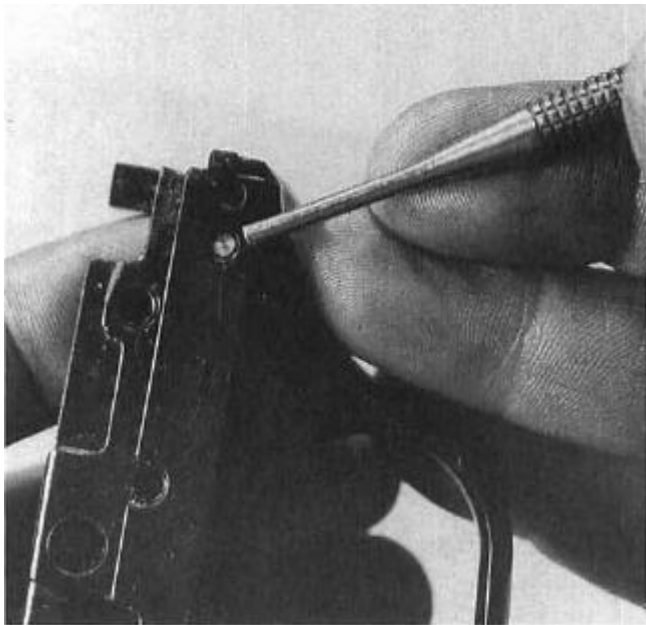
housing, along with its  
attached release spring.



**17.** The slide latch release spring

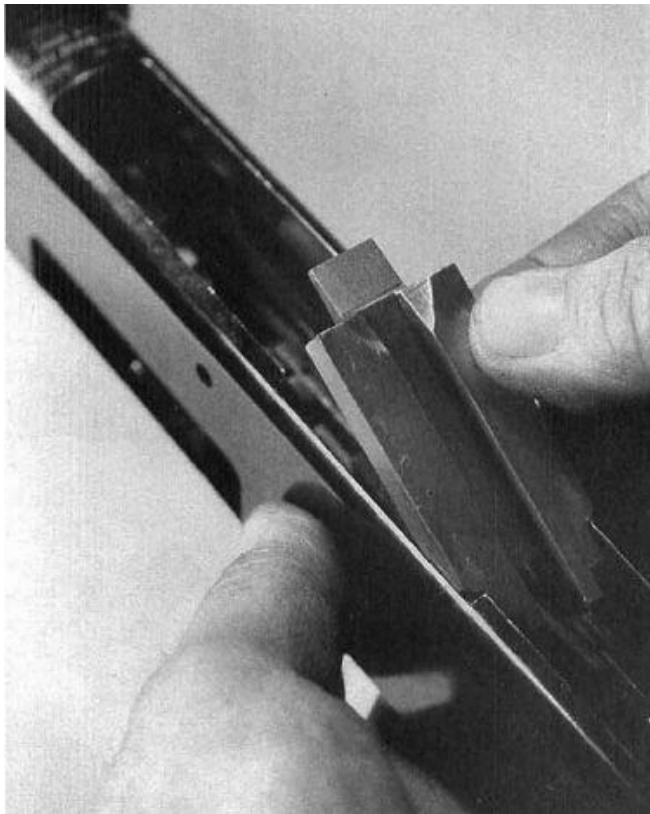
is easily detached-from the front of the slide latch.

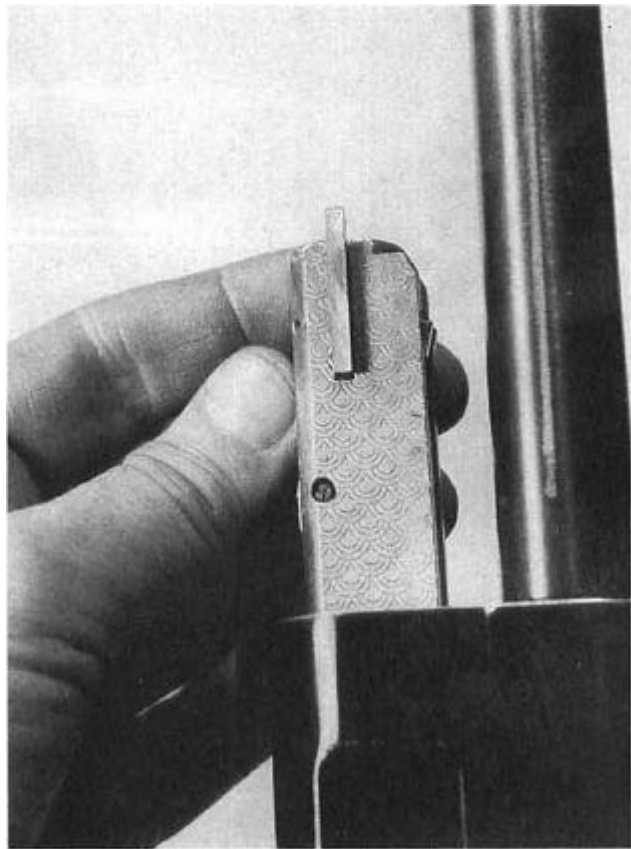
**18.** Pushing out the small cross pin at the front of the trigger housing will release the sear and its torsion spring for removal upward and toward the rear. The spring is under tension, so restrain it as the pin is removed.



**19.** Move the bolt and slide assembly toward the rear until the sides of the slide piece

align with the exit cuts on the inside of the receiver. Lift the slide piece at the front, disengaging it from the bolt, and re-move it from the bottom of the receiver. Move the forend and slide bar assembly out toward the front and remove it. (Note: This applies to late guns only. See step [24](#).)

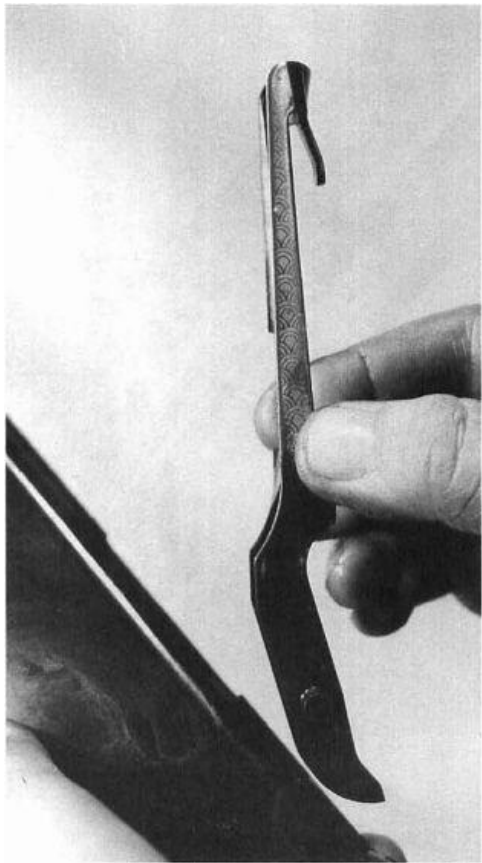




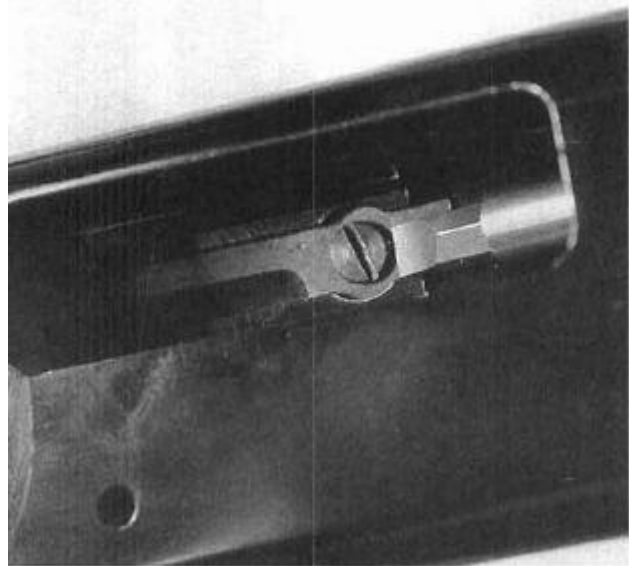


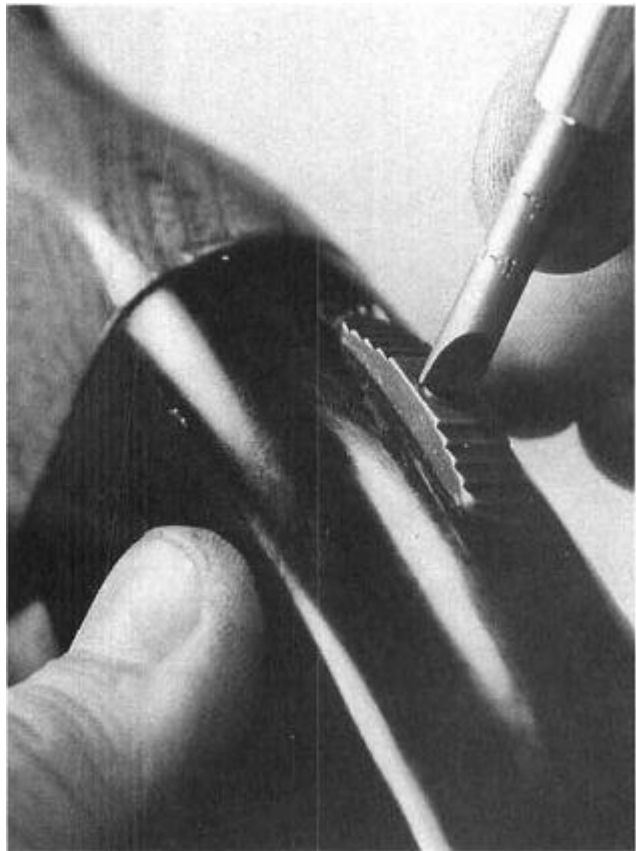
**20.** Remove the bolt from the front of the receiver.

**21.** Swing the carrier out. squeeze the rear arms of the carrier to move the pivot studs out of their holes in the receiver, and remove the carrier. Note that the safety must be in the on-sate position (pushed to the rear) during this operation, to clear the arms of the carrier.



**22.** Insert a screwdriver through the ejection port, and remove the large screw that retains the ejector. Remove the ejector toward the right.

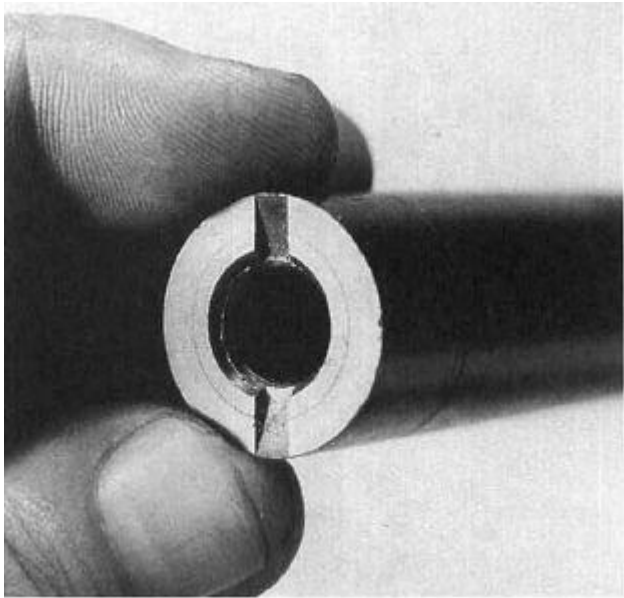




**23.** Back out the screw in the center of the safety button. Remove the safety button, the detent ball, and detent spring upward, and take out the safety block from inside the receiver.

**24.** The magazine spring and follower can be removed only by taking off the magazine tube, which is threaded into the receiver. A large screw slot is provided at the front of the tube, and a tool can be made from steel plate to fit the curve of the slot. Note that if

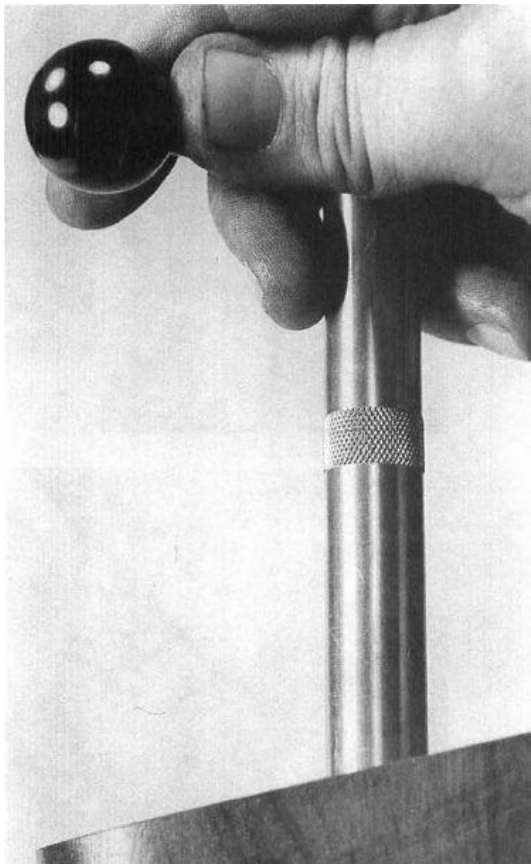
the gun is an early one, removal of the magazine tube will be necessary before the action slide can be taken off, as the earlier versions have a stop ring on the tube.

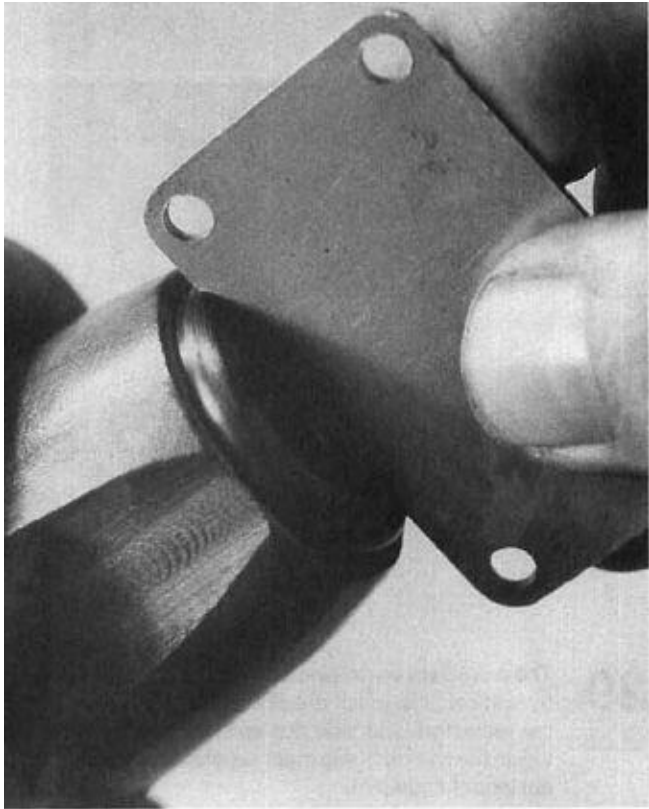


**25.** Remove the buttplate, and use a B-Square stock tool or a long-shanked screwdriver to back out the stock bolt.



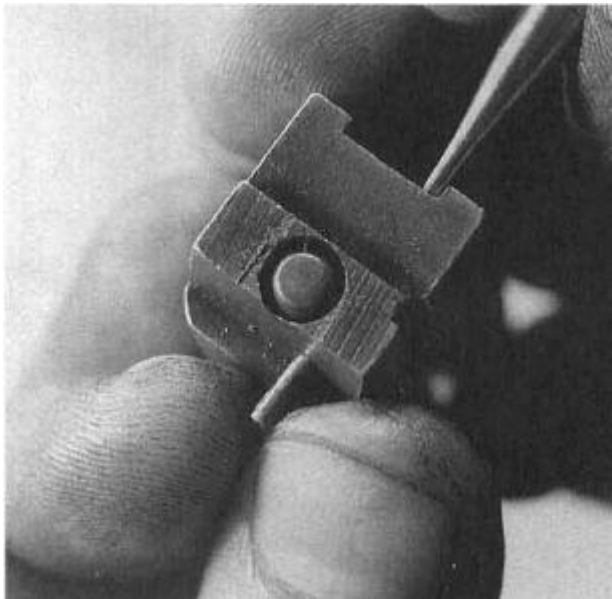
Remove the bolt, washer, and stock toward the rear.





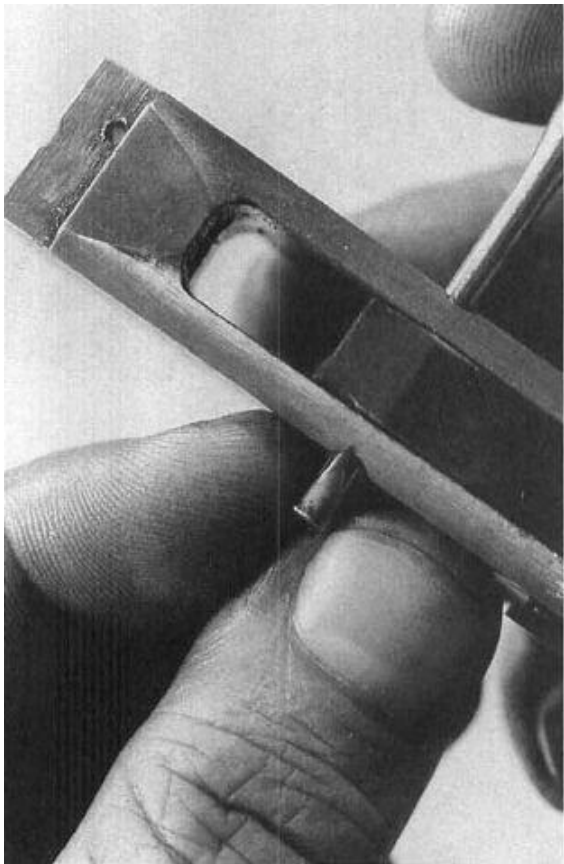
**26.** Use a small piece of steel plate of the proper size and thickness to fit the notches in the front of the slide tube nut, and unscrew the nut counter-clockwise (front view). Slide the tube and slide bar assembly out toward the rear.

**27.** The firing pin is retained in the bolt by a vertical pin on the left side at the rear, and the pin is drifted out upward. Remove the firing pin toward the rear.



**28.** Drift out the locking block cross pin, and remove the locking block from the bolt. Note that the cross pin is

splined at the center for tight seating, and a firm support will be required when driving it out.



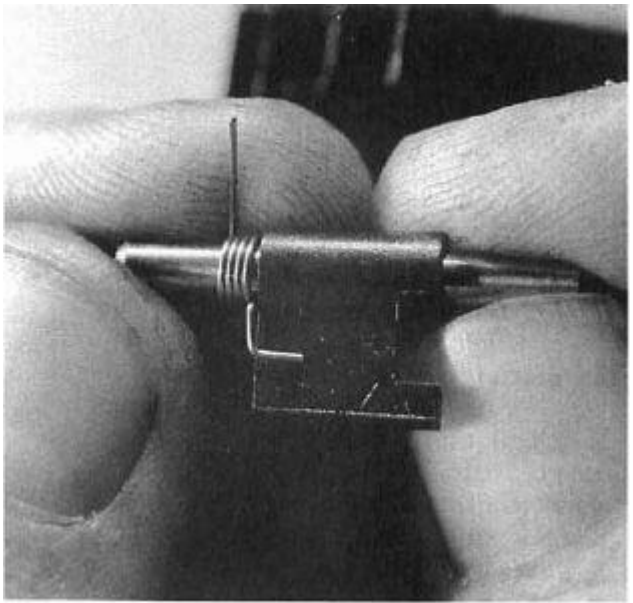
**29.** The extractors are retained on each side of the bolt by vertical pins which are driven out upward, and the extractors and their coil springs are taken off toward each side. Keep them separate, as they are not interchangeable.





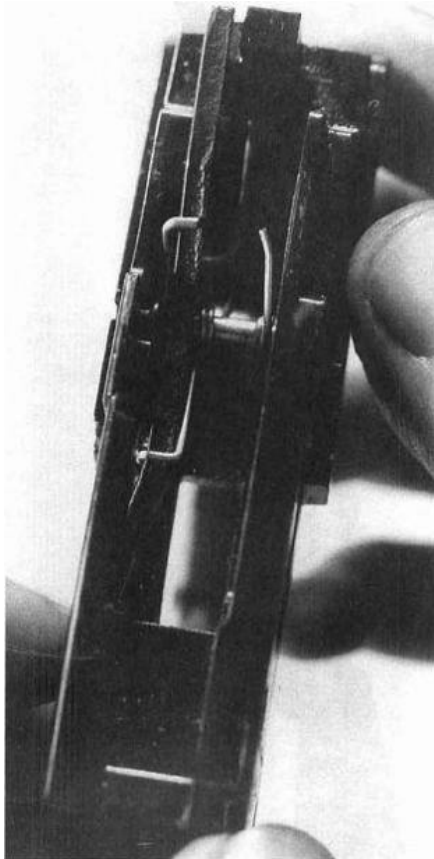
# Reassembly Tips:

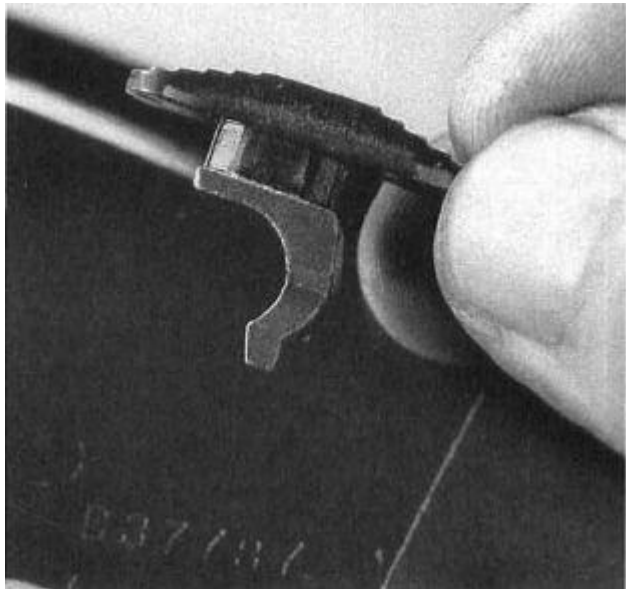
1. When installed inside the front of the trigger housing, the sear and its spring must be assembled as shown (the cross pin has been temporarily inserted for purposes of illustration). Remember that before the hammer is installed, the sear must be lifted to the vertical position.



**2.** This top view of the trigger housing, before installation of the hammer, trigger, and disconnect, shows the

proper engagement of the two  
torsion springs with the slide  
latch.





- 3.** When replacing the safety block inside the receiver, note that it must be installed with its lower projection at the rear,

as shown. (The safety button has been temporarily attached for purpose of illustration.)

# Mossberg Model

695





**Data:** Mossberg Model  
695

**Origin:** United States  
O.F. Mossberg &  
Sons, North  
**Manufacturer:** Haven,  
Connecticut

**Gauges:** 12 only

**Magazine  
capacity:** 2 rounds

**Overall  
length:** 42-1/2 inches

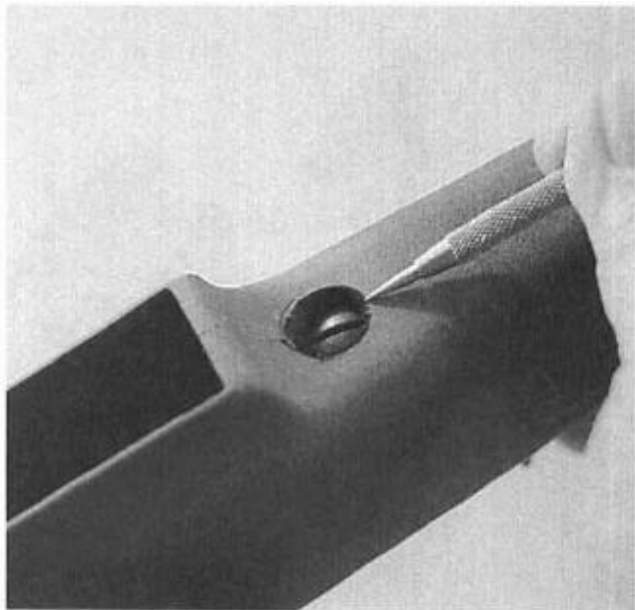
**Barrel length:** 22 inches

**Weight:** 7-1/2 pounds

Introduced in 1996, the Model 695 "Slugster" is notable for having a fully rifled barrel that is also ported to reduce recoil. It also has a set of good open sights, and is drilled and tapped for scope mounts. In an emergency, regular shotshells could be fired in it, but the patterning would be erratic. It was designed for hunting with slug loads.

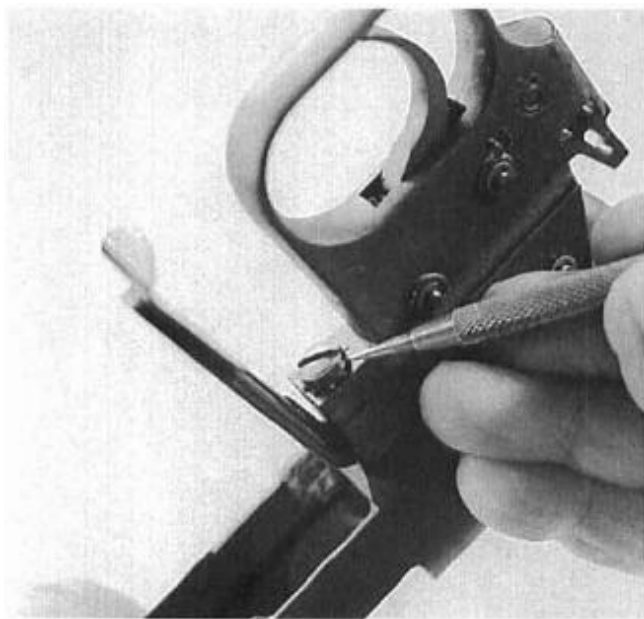
# Disassembly:

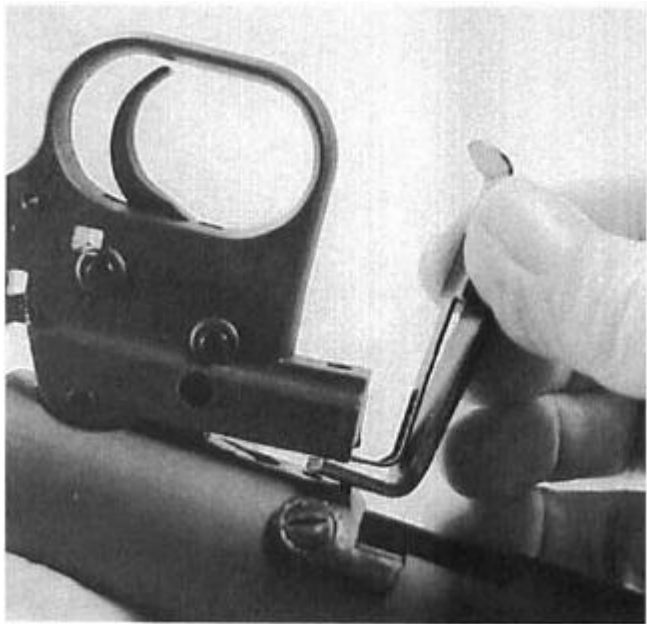
1. Remove the magazine. Open the bolt, keep the trigger depressed, and remove the bolt toward the rear. Back out the takedown screw, and separate the action from the stock. The screw is retained in the stock by a spring washer, and is not routinely removed. If necessary, the recoil pad can be taken off by removing its retaining screws.



- 2.** Remove the large screw at the front of the trigger group. Take care that the lock-washer is

not lost.





**3.** Remove the magazine guide and magazine catch toward the front.

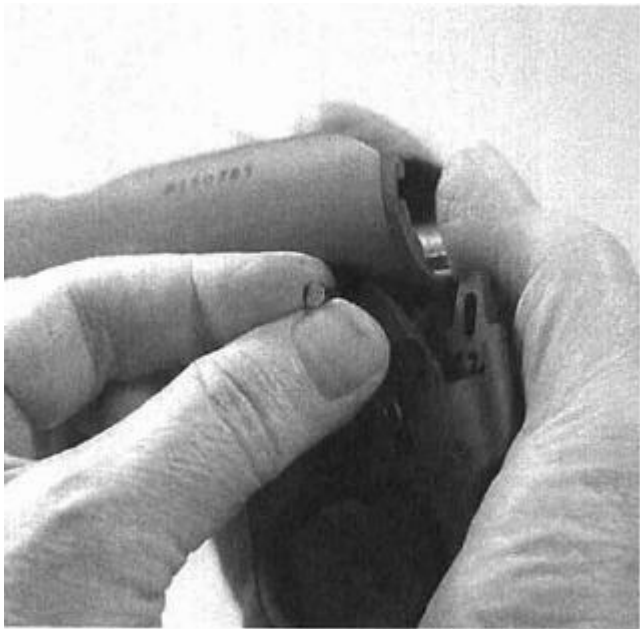


4. Remove the C-clip from the trigger group cross pin. As with all C-clips, take care not



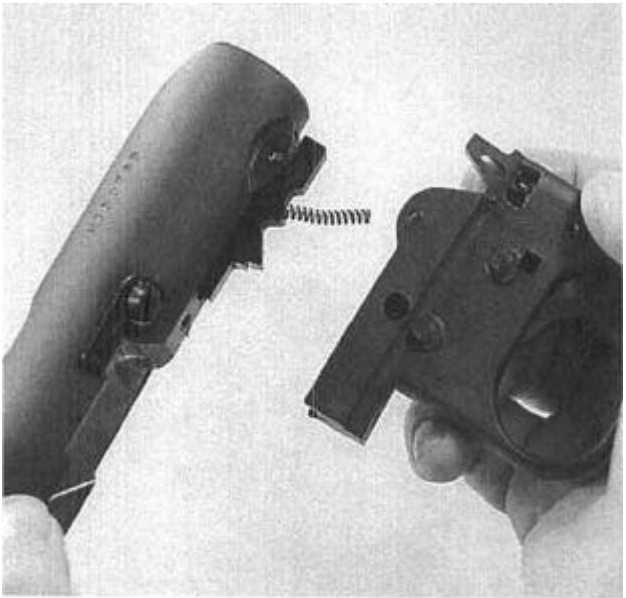
to lose it.

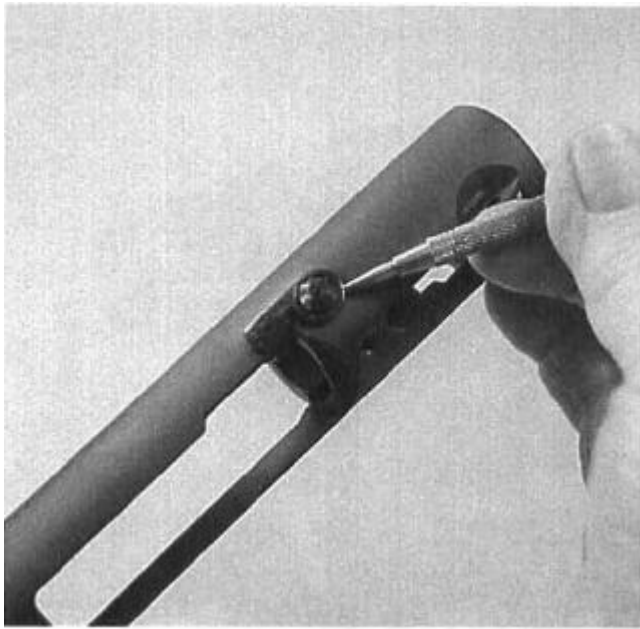
- 5.** Push out and remove the pin toward the left.



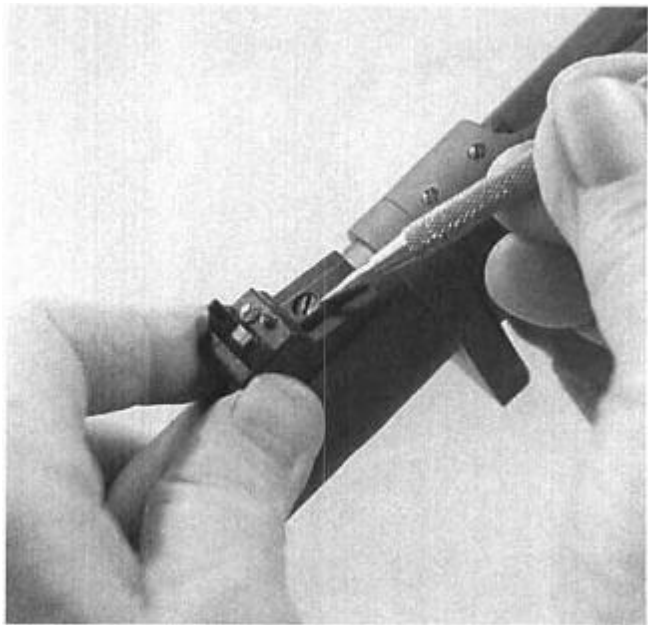
6. Remove the trigger group downward. The sear and its spring will likely stay in the

receiver, and can be lifted out.





7. The ejector can be removed from the receiver by taking out its mounting screw.



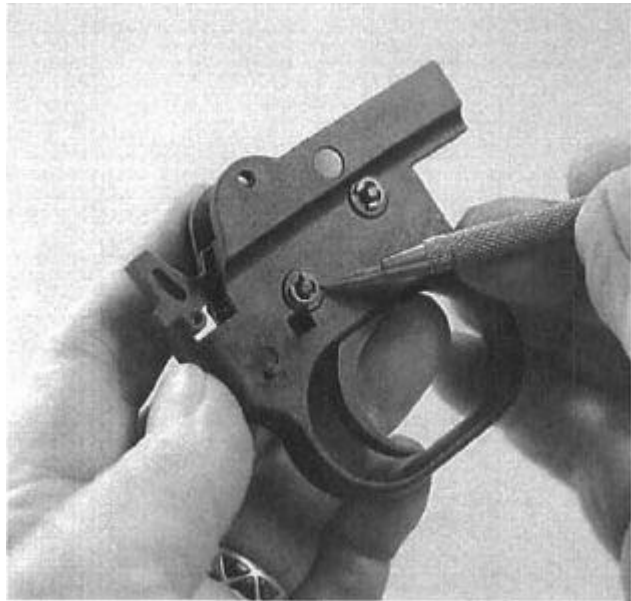
**8.** Loosening the smaller vertical adjustment screw will allow

the rear sight to be moved upward and off its base. This will expose the base retaining screw. The front sight is not routinely removable from the barrel.

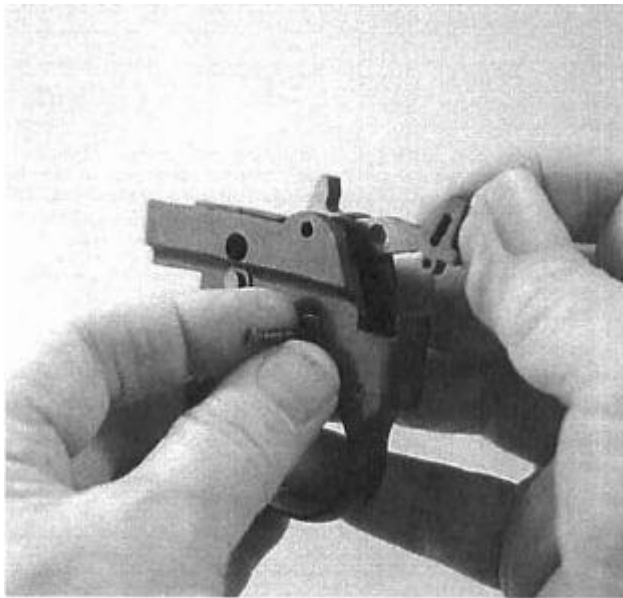
9. Use a small tool to unhook the trigger spring from its hole in the back of the trigger. It will have to be turned as it comes out, to clear.



**10.** Remove the C-clip from the end of the trigger pin.







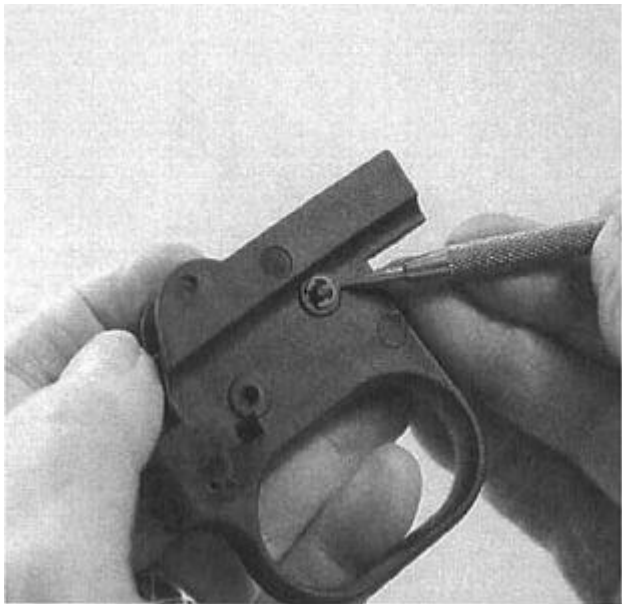
**11.** Remove the trigger pin toward the left. Remove the trigger upward.



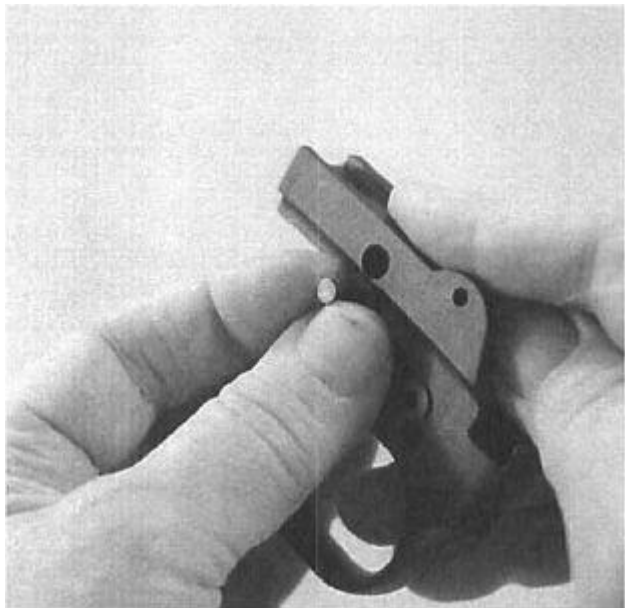
**12.** Using a proper roll-pin drift to push out this cross pin will release the trigger spring for removal upward. If removal is

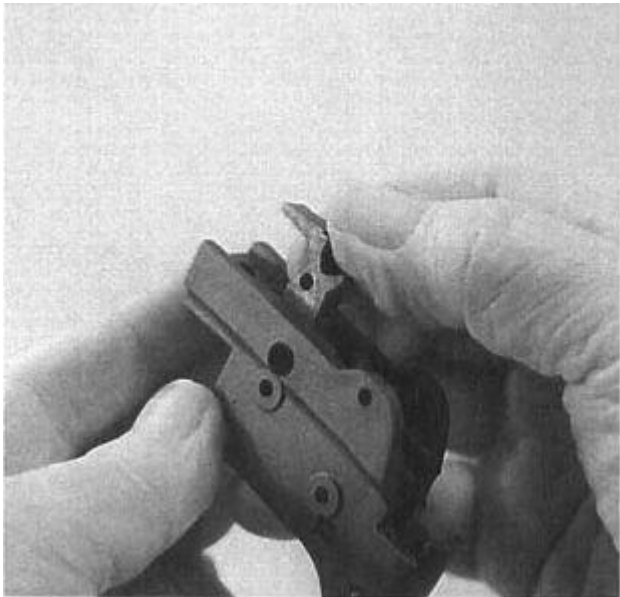
not necessary for repair, it is best left in place.

- 13.** Remove the C-clip from the sear-trip cross pin.

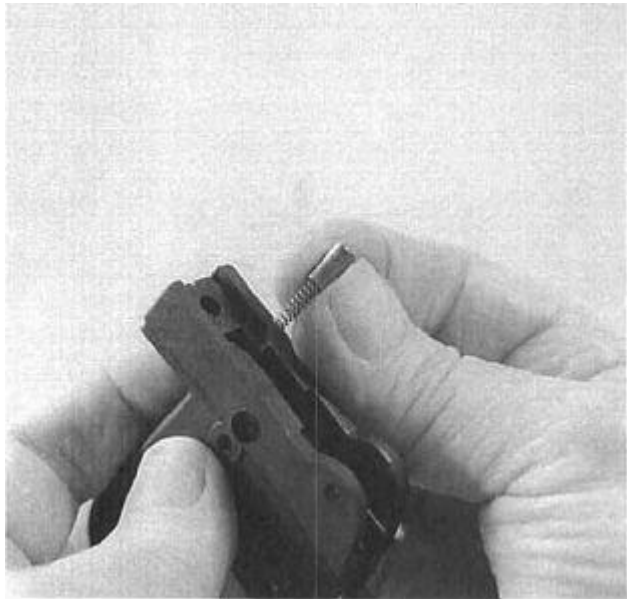


**14.** Push the sear-trip pin toward the left, and remove it.





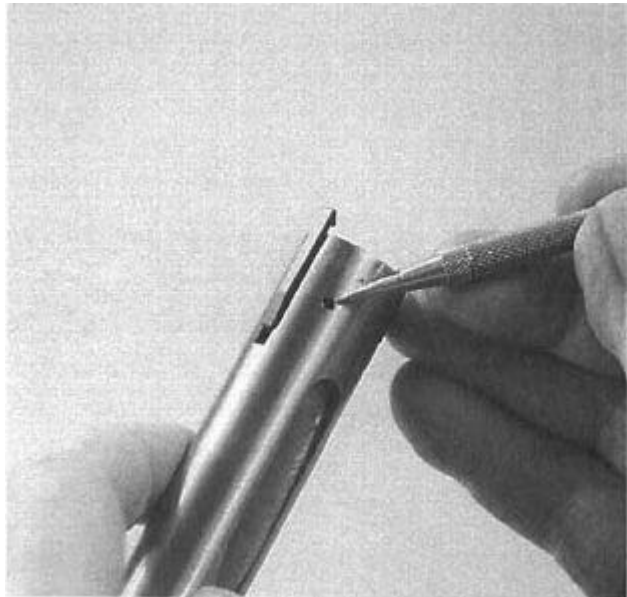
**15.** Remove the sear-trip upward.



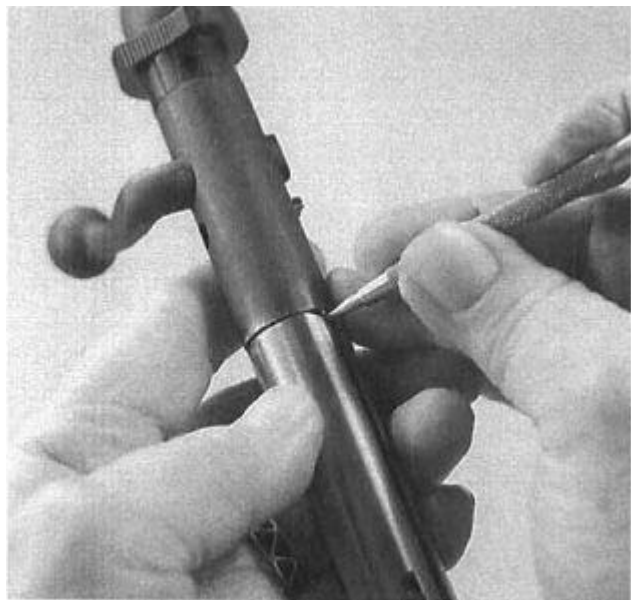
**16.** Remove the sear-trip plunger and spring.

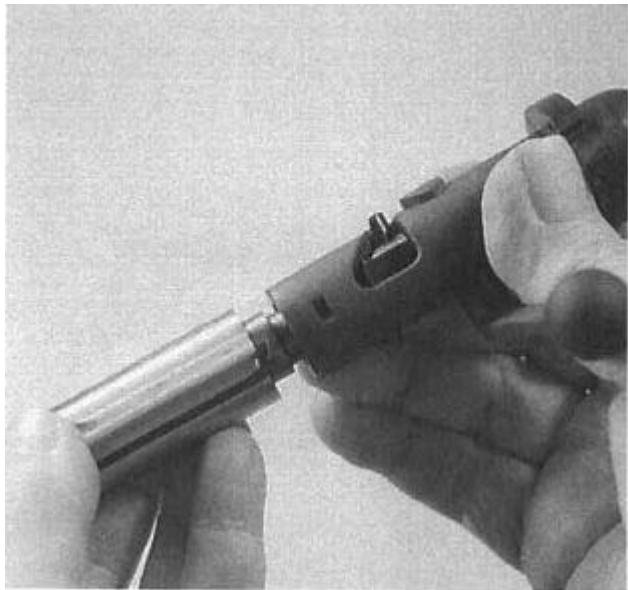
**17.** The extractors are retained on each side of the bolt by vertical pins. Drift the pins out upward, and remove the extractors and their small coil springs toward each side. Note that the extractors, springs, and pins are not identical, so keep them separate if both are removed.



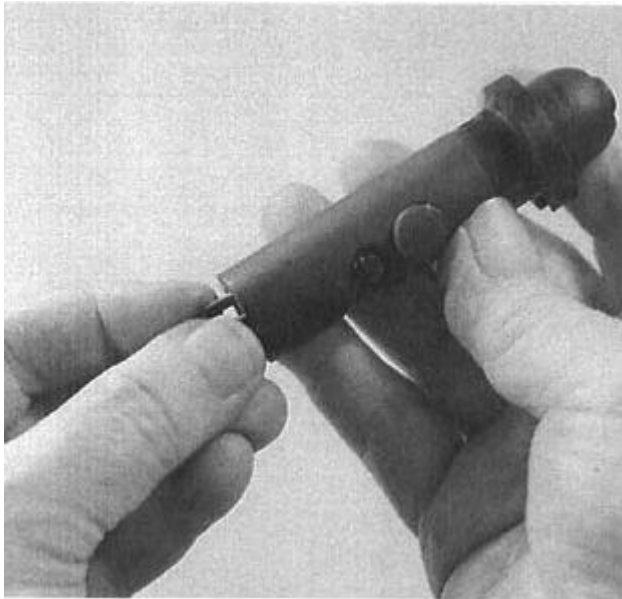


- 18.** Depress the bolt index plunger toward the rear, and turn the front section of the bolt clockwise (front view).





**19.** When it reaches the position shown, the front section can be removed toward the front.

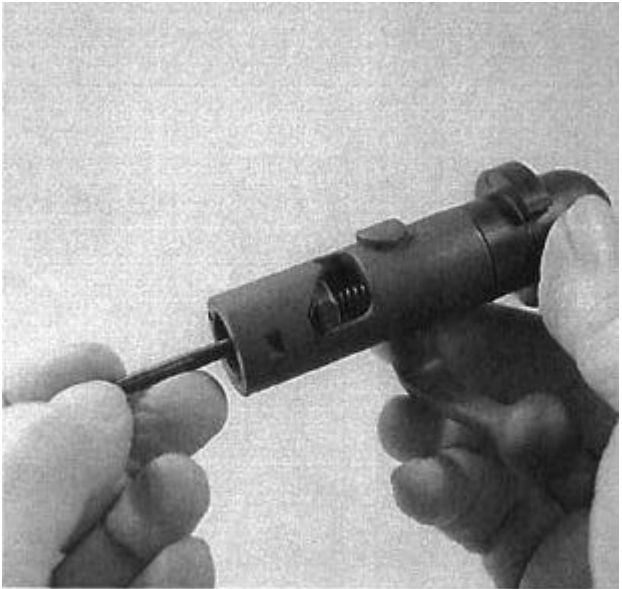


**20.** Remove the index plunger and its spring from the rear section of the bolt. Use a small hooked tool to pull out the

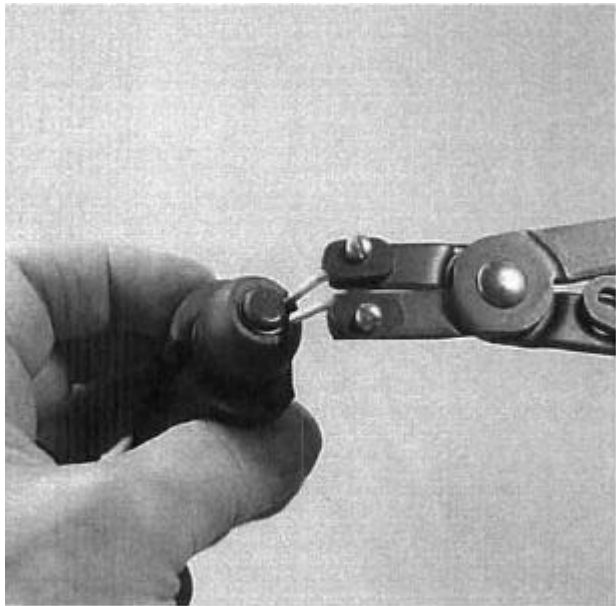
spring.

- 21.** Press the firing pin point against a solid surface and depress it slightly rearward. Turn the cocking lug to the left (rear view) and ease the striker down to fired position. This is not part of disassembly; it's to prevent it from being inadvertently tripped and pinching the fingers during further operations. It is possible to align the cocking lug/sear lug with an access hole and drive it out, releasing the striker/

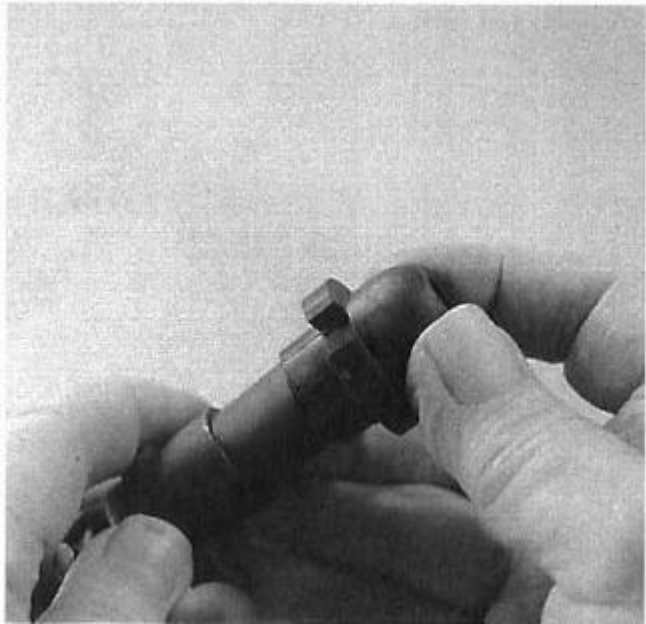
firing pin unit and its spring, but this is not recommended. If this system needs repair, it must be returned to the factory.



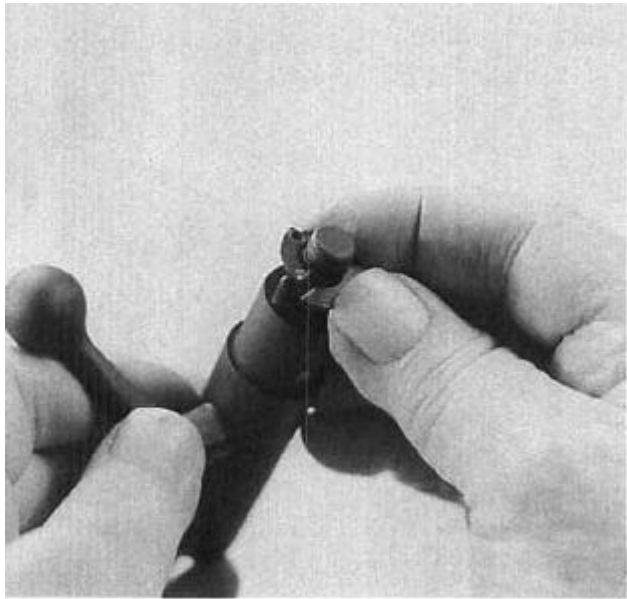
**22.** The safety system should be disassembled only for repair. To remove the safety knob, you must use spring-ring pliers. Install the .045-inch tips, and spread the ring only enough to clear one side and tip it off. Do not attempt to slide it straight off, or the ring will be damaged. This operation is best done with the bolt body held in a padded vise.





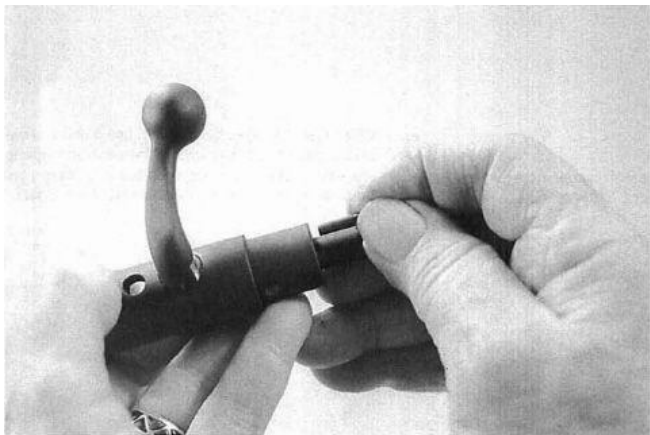


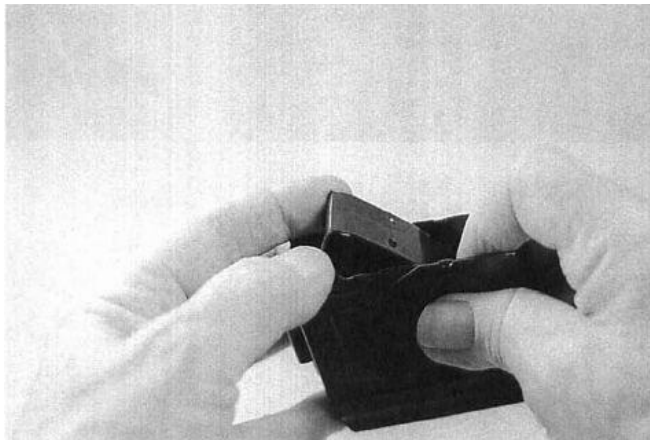
**23.** Remove the safety knob toward the rear.



**24.** Remove the safety detent plate toward the rear.

**25.** Remove the safety detent plunger and spring. Use a small hooked tool to pull out the spring.



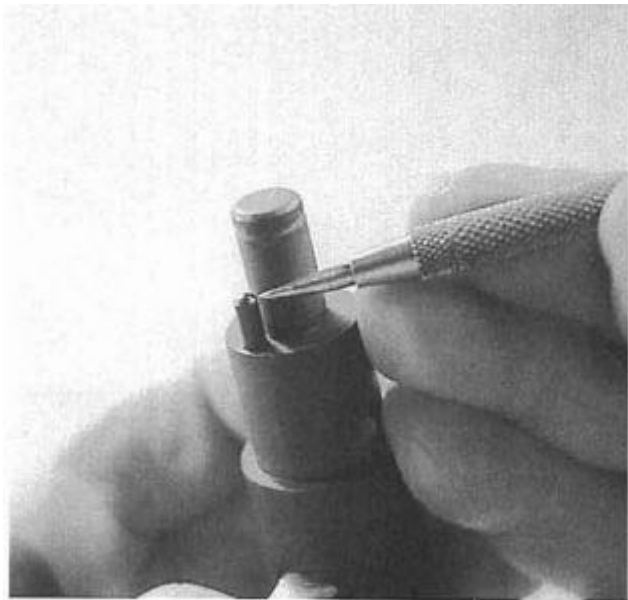


**26.** The magazine can be disassembled for cleaning by pushing down the front of the follower until its rear end will clear the feed lips. The follower and its attached spring are then taken out

upward.

# Reassembly Tips:

1. When installing the safety detent plunger, note that its rounded end must go outward, to the rear.

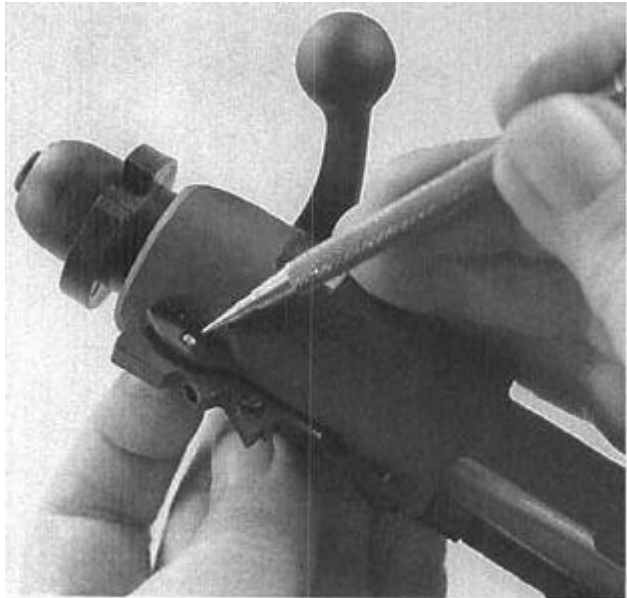




2. When re-attaching the trigger spring, be sure its "hook" is inserted all the way through the hole in the trigger.



3. When installing the trigger group, use a short "slave pin" to hold the sear in place for reinsertion of the group cross pin. Put the bolt in to keep the sear in position. Be sure the sear spring enters its well in the trigger.



# **Mossberg Model**

**9200**



## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Mossberg Model 9200 also apply to the following guns:

**Model 9200 Viking**

**Crown Grade**

**Special Hunter**

**Bantam**

**Custom Grade**

**Data:** Mossberg Model  
9200

**Origin:** United States

<b>Manufacturer:</b>	O.F. Mossberg & Sons, North Haven, Connecticut
<b>Gauges:</b>	12 only
<b>Magazine capacity:</b>	4 rounds
<b>Overall length:</b>	44-1/2 inches
<b>Barrel length:</b>	24 inches (others offered)
<b>Weight:</b>	7-1/2 pounds

The Model 9200, introduced in 1992, was a slight re-design of the Mossberg Model 5500. Some of the instructions can also be applied to that gun. It should be noted that on several Mossberg shotguns, including this one, the manual safety systems cannot be disassembled easily. If repair is necessary, it is intended to be factory done. The company would likely wish it otherwise, but this is a legal protection.

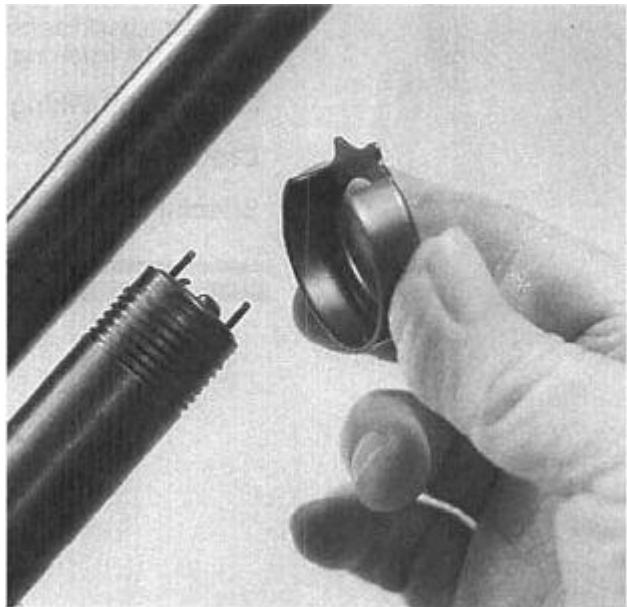
# Disassembly:

1. Cycle the action to cock the internal hammer, leaving the bolt in closed (forward) position. Set the manual safety in on-safe position. Unscrew the forend cap, and remove the forend toward the front.





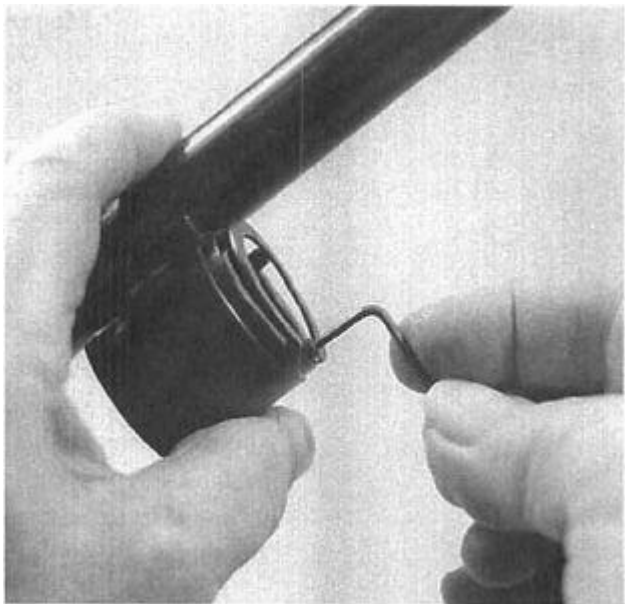
**2.** Remove the gas cylinder cover.





3. Remove the barrel toward the front. On this rifled-bar-rel version, the front sight blade can be moved sideways out of

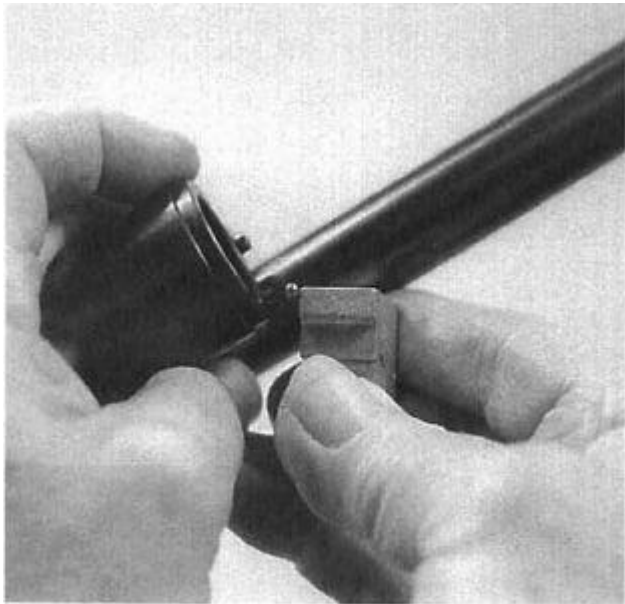
its dovetail by loosening the small Allen screw at the front. The rear sight base can be taken off by sliding the vertical adjustment plate off to expose the mounting screw.



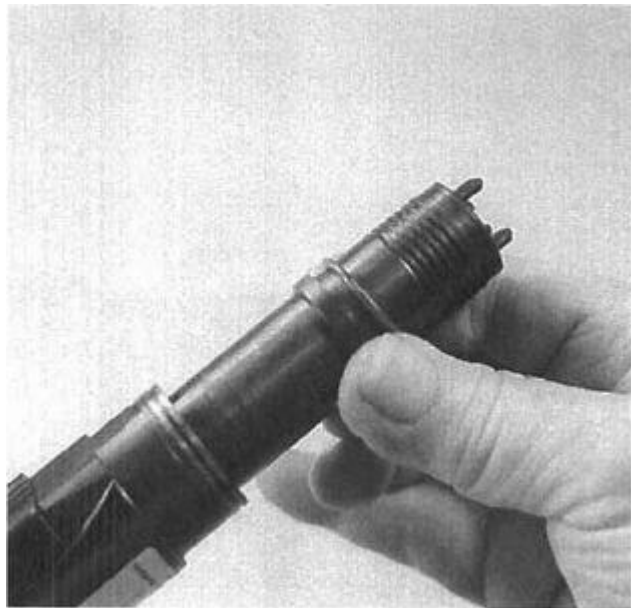
4. The valve ball spring can be removed by taking out this Allen screw. This screw is tightly installed, and removal

should be done only for repair purposes.

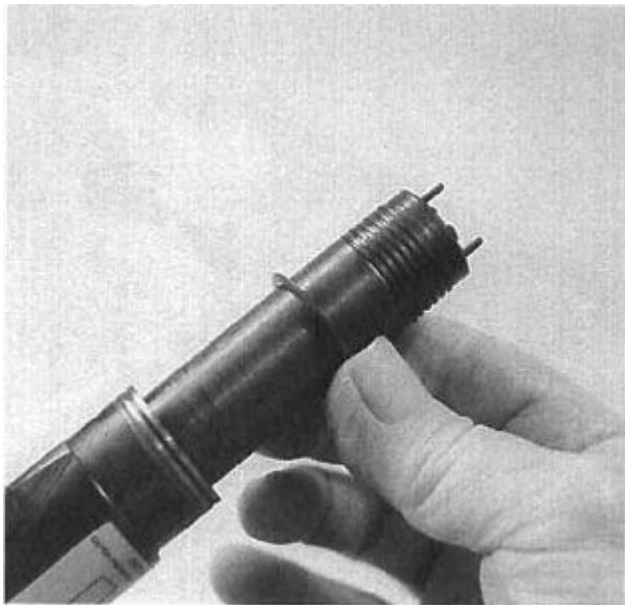
- 5.** Use a magnet to lift out the two valve balls and prevent the loss of these small parts. Again, this system should be disassembled only for repair purposes.



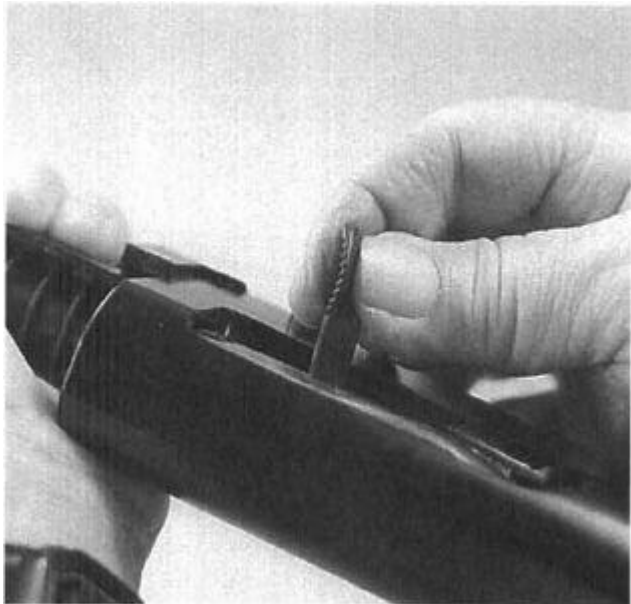
- 6.** Remove the O-ring and the forward seal ring.







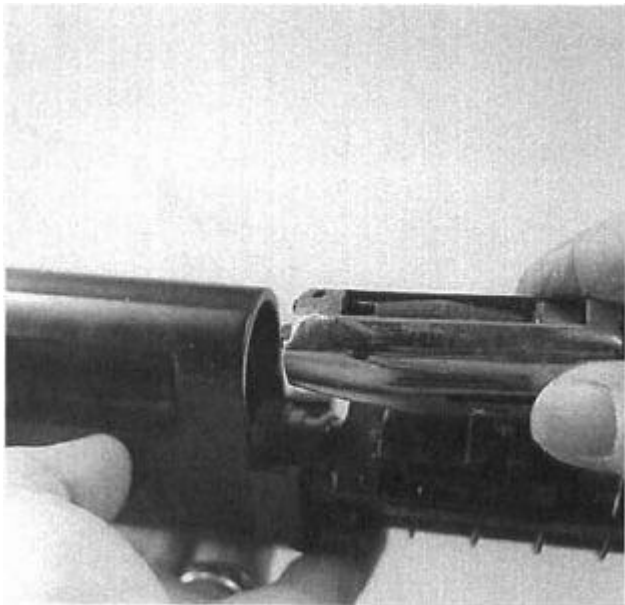
**7.** Remove the inner seal ring.



- 8.** Move the action slide slightly to the rear, and remove the bolt handle. Control the action slide, as the spring, will tend

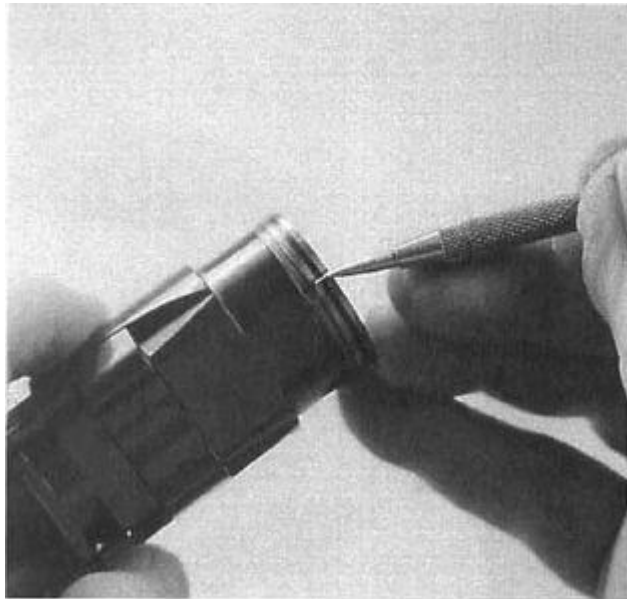
to push it forward.

- 9.** Ease the action slide forward until the bolt is clear of the receiver, and lift off the bolt.



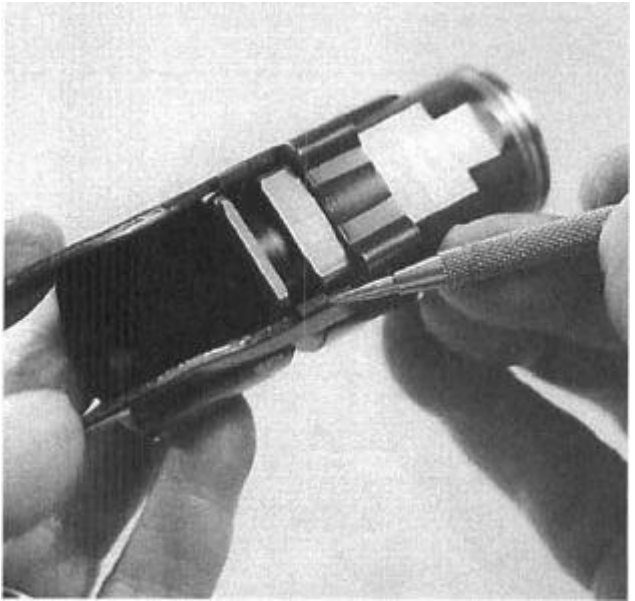
**10.** Remove the action slide assembly.





**11.** The outer piston ring should be removed only for repair. If necessary, it can be spread very slightly at its cut and

taken off the front of the inertia weight.

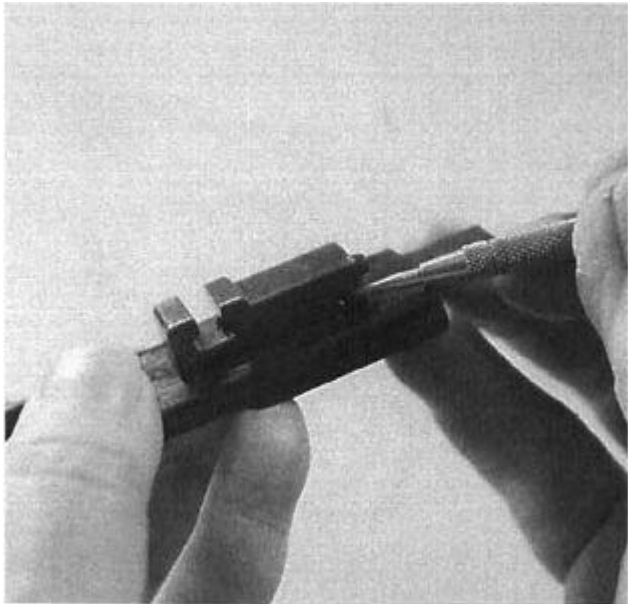


**12.** Again, if necessary, the ends

of the action bar spring retainer can be slightly compressed inward, and the action bar can be separated from the inertia weight.

- 13.** This cross pin in the bolt base on the action bar retains the buffer plunger, coil spring, and bolt handle plunger. The spring is compressed, so control it, if this pin is drifted out.

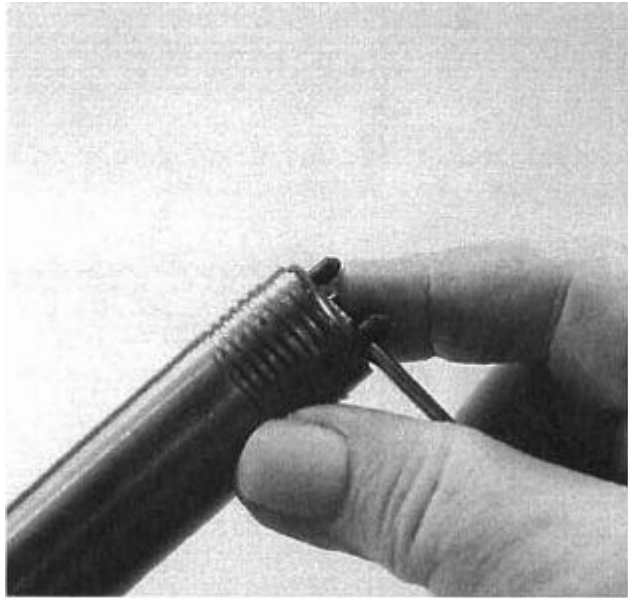




**14.** Remove the action spring and the inertia weight buffer from the magazine tube. The magazine tube is not routinely

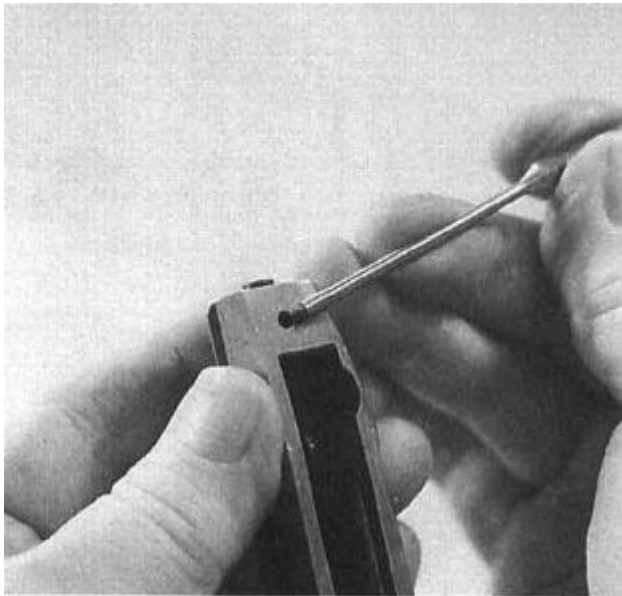
removable.





**15.** To remove the magazine spring, follower, and the forend cap detent, insert a tool to pry out the spring retainer,

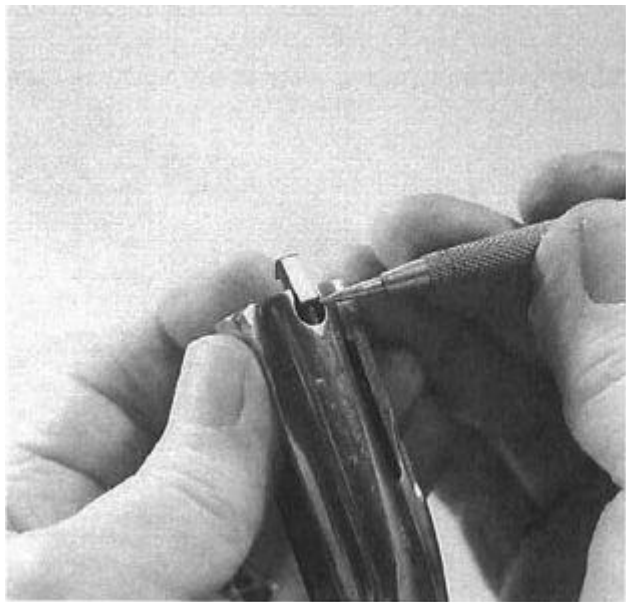
using alternate angles.  
Caution: The magazine spring  
will be released, so control  
the retainer. Wear eye  
protection.



**16.** Use a proper roll-pin drift to remove the firing pin retaining pin upward. Control the firing pin as the drift is withdrawn,

and take out the firing pin and its spring toward the rear. This will free the locking block for removal from the bottom of the bolt.

- 17.** Insert a sharp tool, such as a small screwdriver, between the extractor and its plunger. Depress the plunger rearward, and lift out the extractor. Ease the plunger and spring out for removal. Caution: Keep the plunger and spring under control. This operation is best done with the bolt in a padded vise.



**18.** Use a small drift, or the special Brownells tool shown, to push out the two trigger

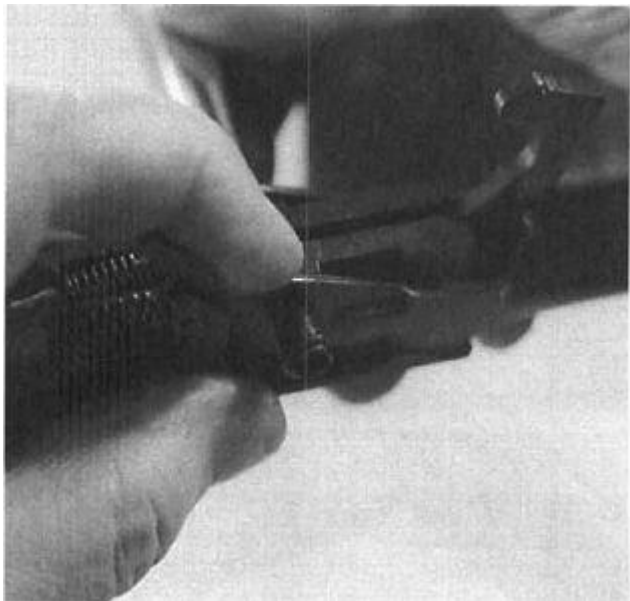
assembly retaining cross pins.







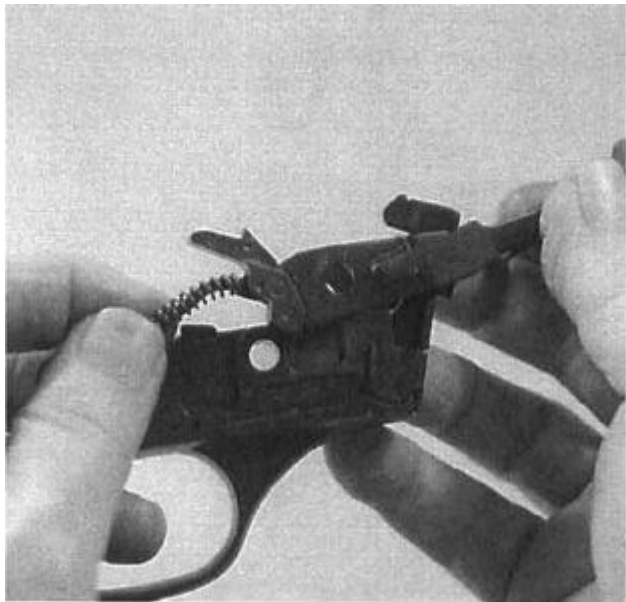
- 19.** Remove the trigger assembly. Restrain the hammer, pull the trigger, and ease the hammer down to the fired position.



**20.** Restrain the carrier, and push out the carrier pivot toward the right. The cross-pin spring

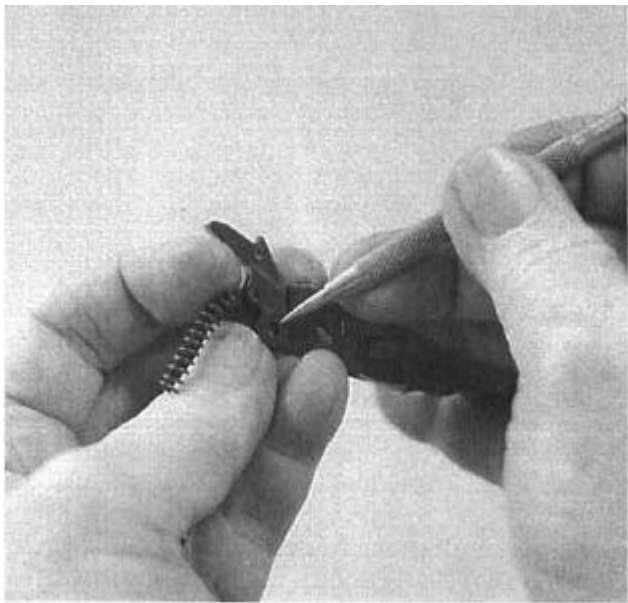
clip can be left in place on the pivot/sleeve.

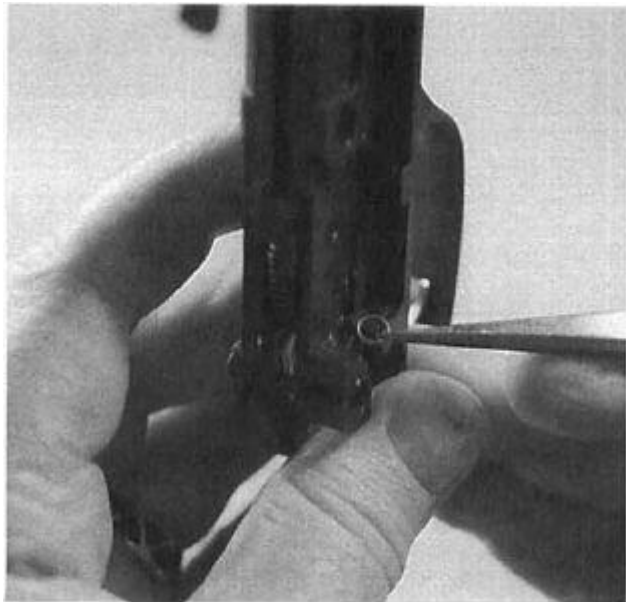
- 21.** Remove the carrier assembly from the trigger housing.



**22.** The carrier dog, or "pawl," is easily taken off by pushing out its pivot. The spring strut is retained on the carrier dog by

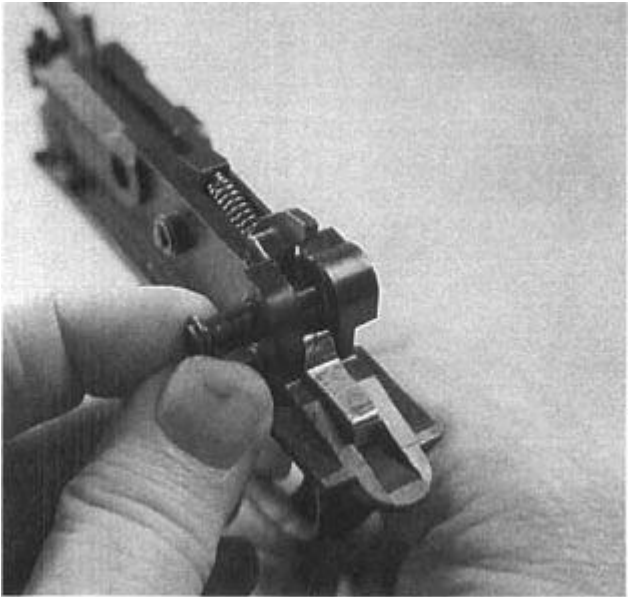
a small roll pin.





**23.** In the carrier spring recess on the right side of the trigger housing there is a small ring washer that keeps the spring

end level. Take care that it isn't lost.



**24.** The rear cross-pin sleeve is

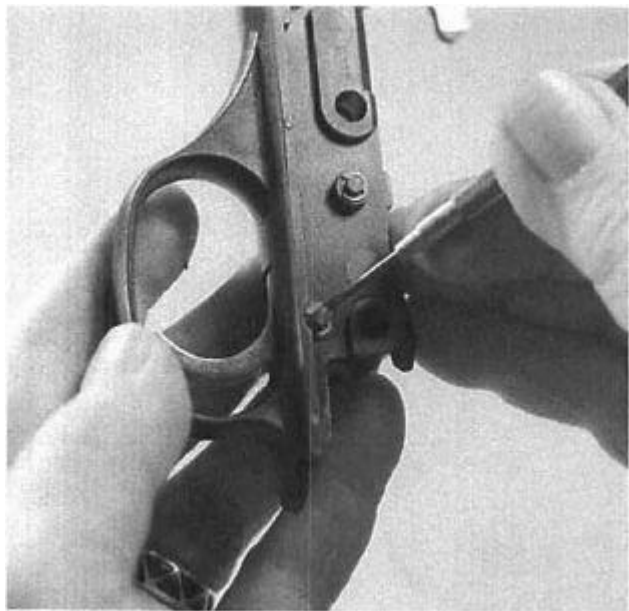
easily taken out toward the left.

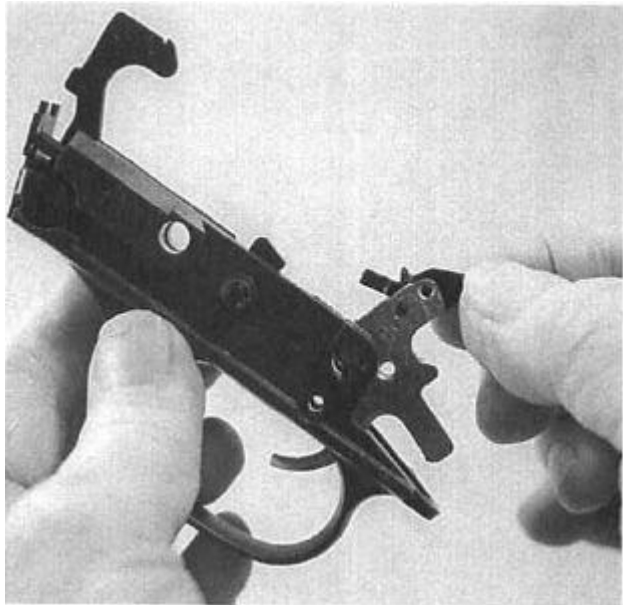
- 25.** Depress the disconnecter, and insert a tool (slim pliers are being used here) to detach the sear and trigger spring from its stud on the disconnecter. Remove the spring rearward, pulling it off its stud on the sear.





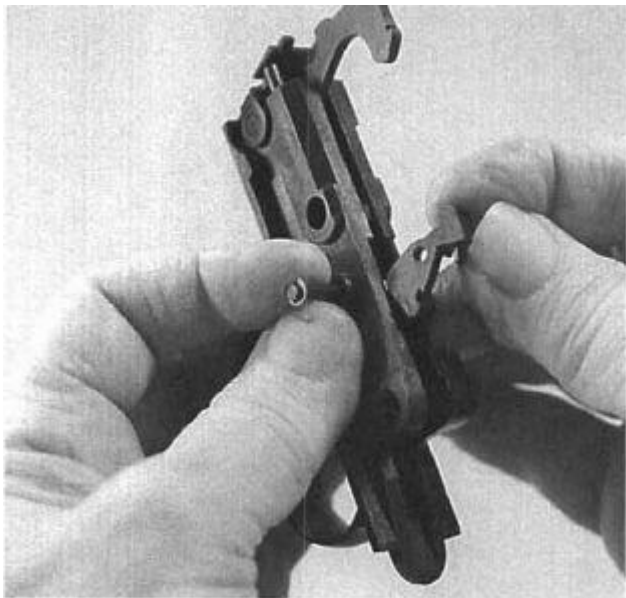
**26.** It is not necessary to remove the C-clip from the trigger cross pin. Just push the pin out toward the left.





**27.** Remove the trigger and the attached disconnecter upward. If necessary for repairs the stop pin and disconnecter

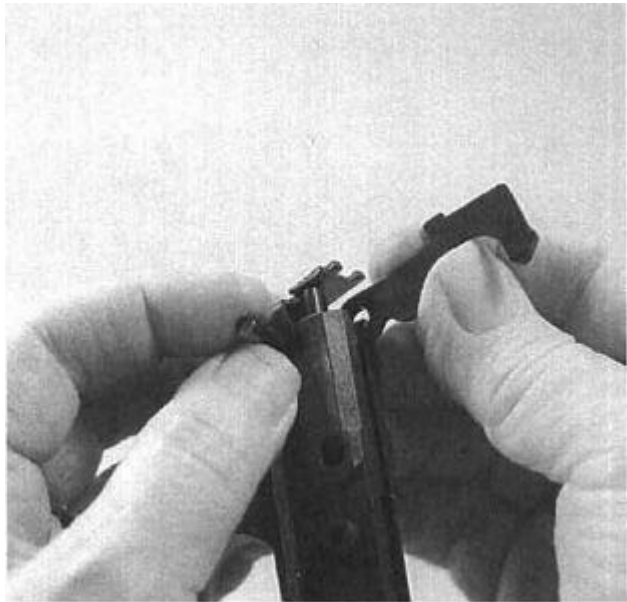
pivot can be drifted out of the trigger.



**28.** Push out the sear pin toward

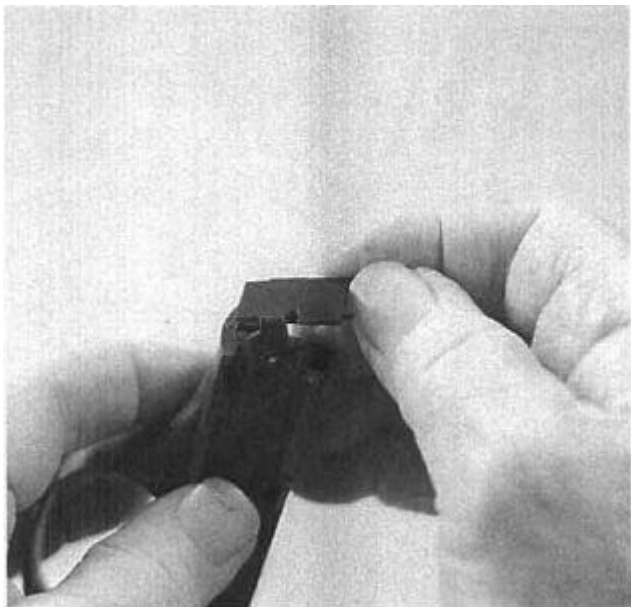
the left, and remove the sear upward.

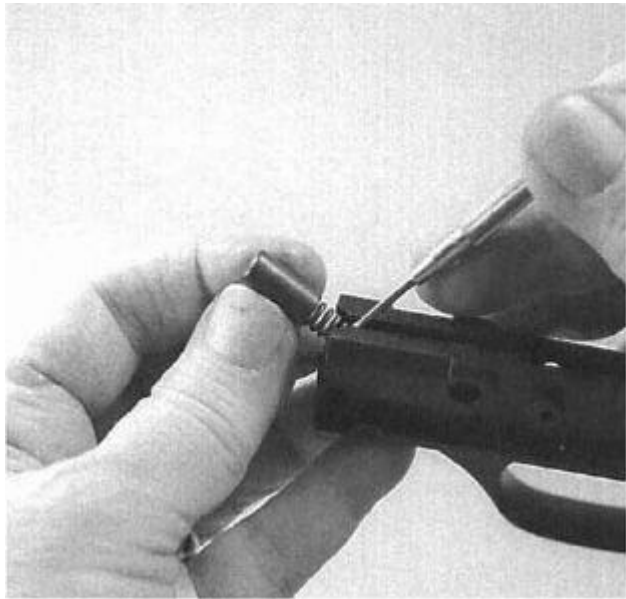
**29.** Push out the hammer cross pin, and remove the hammer upward.



**30.** Removal of the hammer pin will also release the guideplate for removal. The guide plate pin is best left in

place. It retains no part.

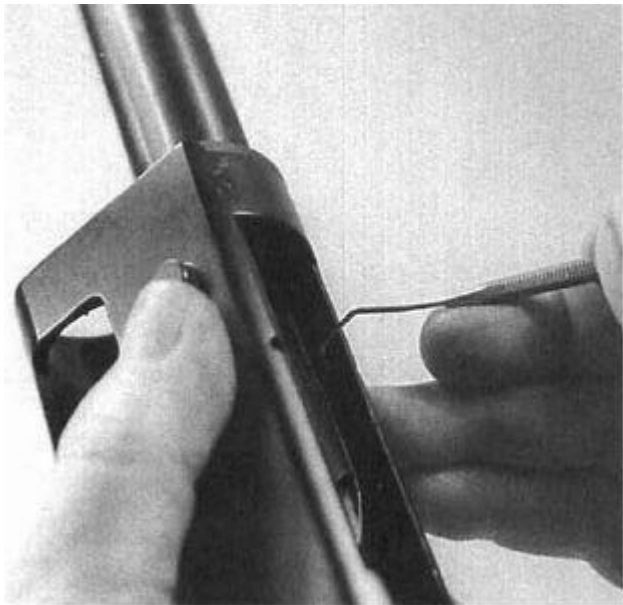




**31.** Insert a small tool to lift the hammer spring and follower for removal.

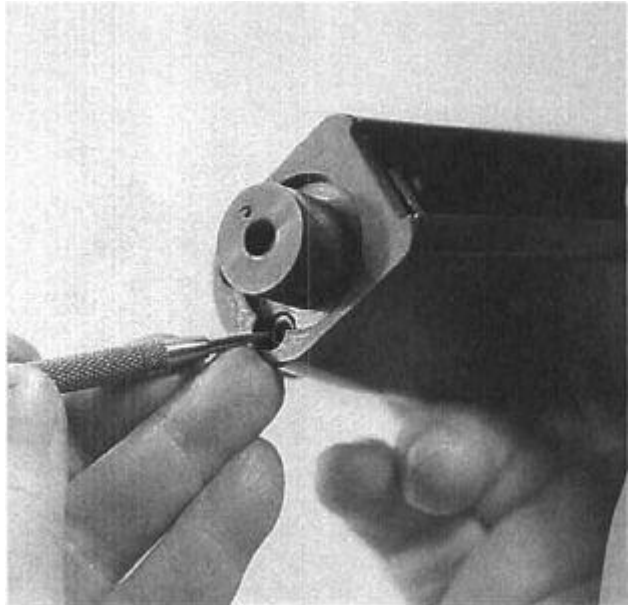


**32.** The shell stops are pivoted and retained by vertical pins in each side of the receiver. The pins are retained by spring clips in slots, and the clips are slid off the posts rearward. A dental tool, shown, or something similar, will be needed. Take care that the small spring clips are not lost.



**33.** If buttstock removal is necessary, it is retained by a through-bolt from the rear, accessible by taking off the

recoil pad. Use a B-square stock tool or a long, large screwdriver. With the stock removed, two Allen screws will be visible at the rear of the receiver. These are not routinely taken out. They retain the bolt-buffer assembly, and the manual safety system is involved.





**34.** Note that the manual safety is installed with a "one-way" screw. It is intended that any disassembly of this system be

done by returning the receiver to the factory.

# Reassembly Tips:

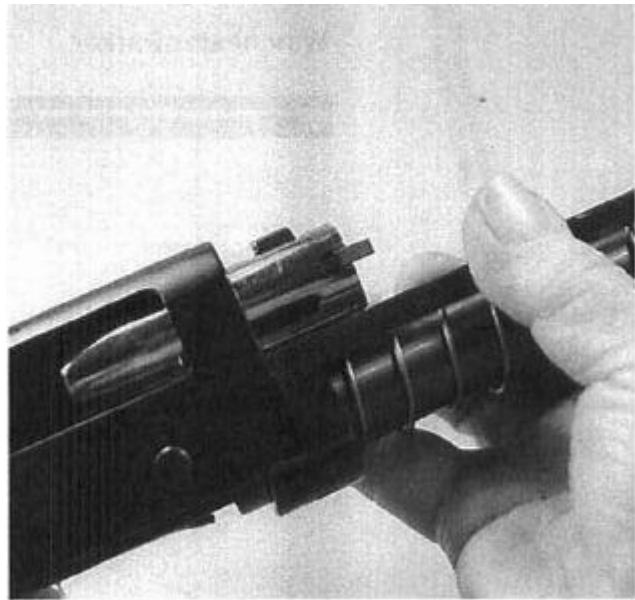
1. When installing the combination sear/trigger/disconnector spring, remember that the smaller end of the spring goes on the sear stud, toward the front.

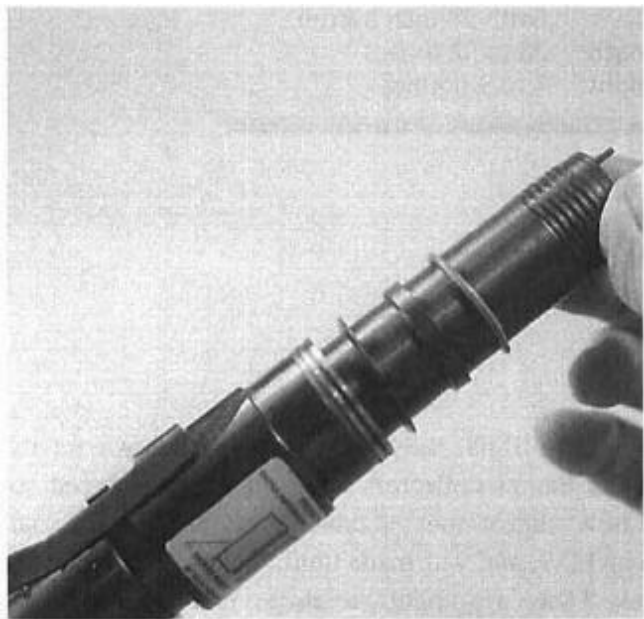


**2.** As the bolt and action slide are being moved back into the receiver some resistance may be felt as the system



encounters the shell stops.  
USE NO FORCE. Turn the  
action slide slightly from side  
to side, keeping rear-spring  
ward pressure, and it will  
move into place.





3. Install the three rings as shown, with the two steel rings having their beveled sides toward the rear.



# Parker Double



## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Parker Double also apply to the following guns:

**Parker Reproductions Double**  
**Winchester Parker**  
**Remington Parker AHE**

Data: Parker Double

Origin: United States

Manufacturer: Parker Brothers,  
Meriden,  
Connecticut

Gauges:	10, 12, 16, 20, 28, and 410
Overall length:	43-1/2 inches (with 28-inch barrel)
Barrel length:	26 to 32 inches
Weight:	7 to 9 pounds

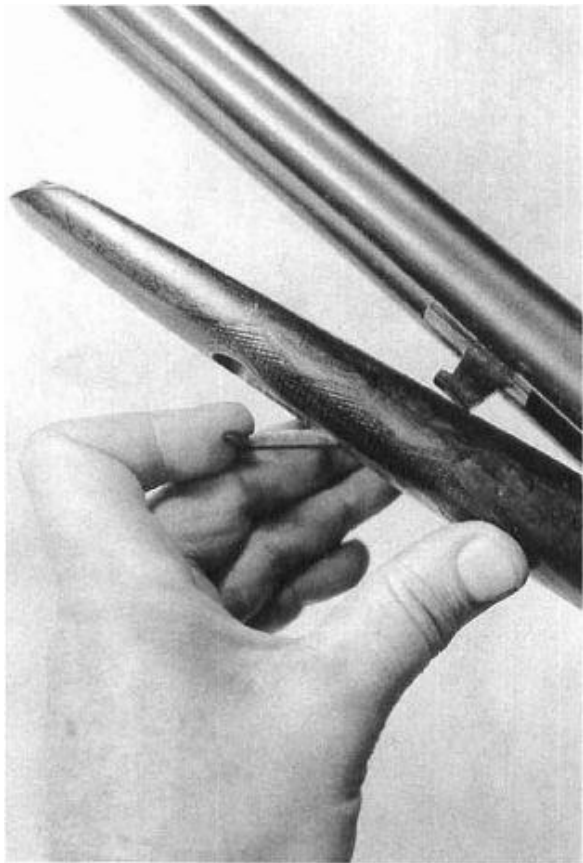
From the first external hammer gun of 1868, the Parker has been known for its quality and reliability. The serious Parker collectors have pursued the breed



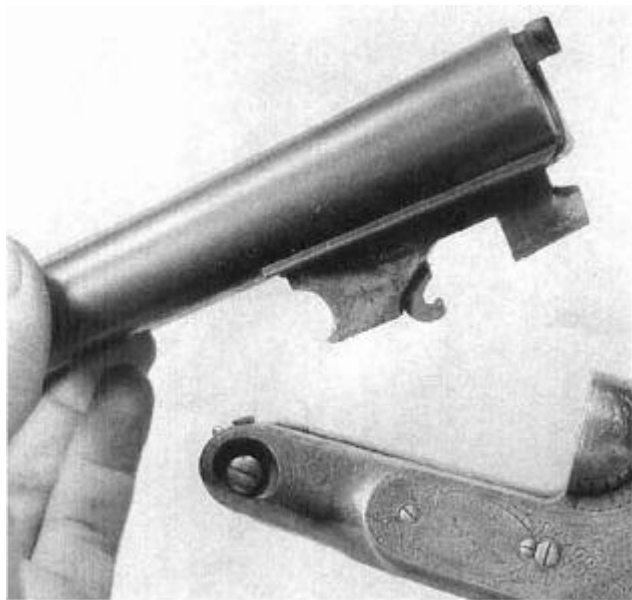
so avidly that these shotguns are now almost too valuable to shoot. The internal hammer version was introduced in 1889, and was made until about 1939, the last 5 years under Remington auspices. There are slight variations in the mechanism among the many options that were offered, but the basic action was unchanged, and the instructions will apply to the entire line. This includes the excellent Parker Reproductions guns that were made in Japan from 1984 to 1989.

# Disassembly:

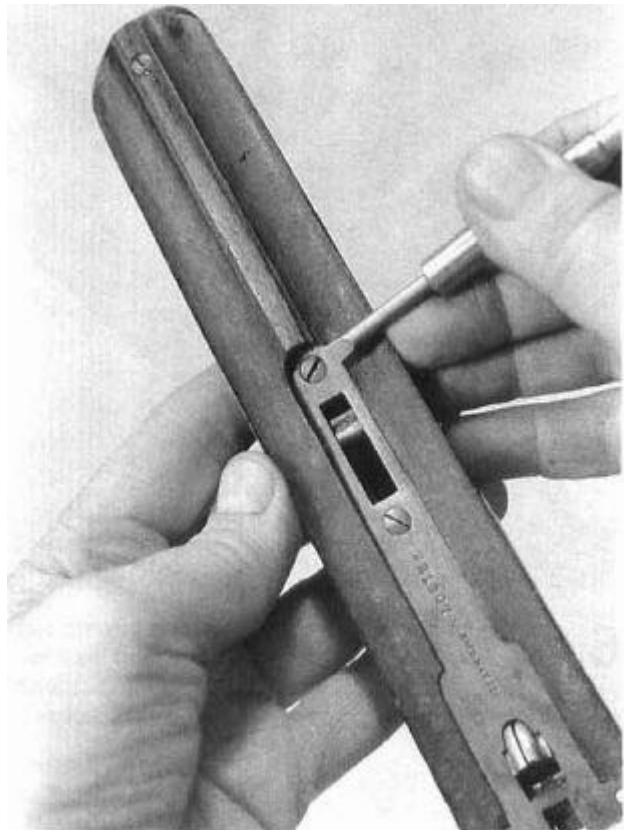
1. Open and close the action to cock the hammers. Pull the forend latch lever outward, and remove the forend downward and toward the front. Some models have a plunger-and-roller system instead of the lever, and with these, the forend is simply tipped away from the barrel at the front and removed.



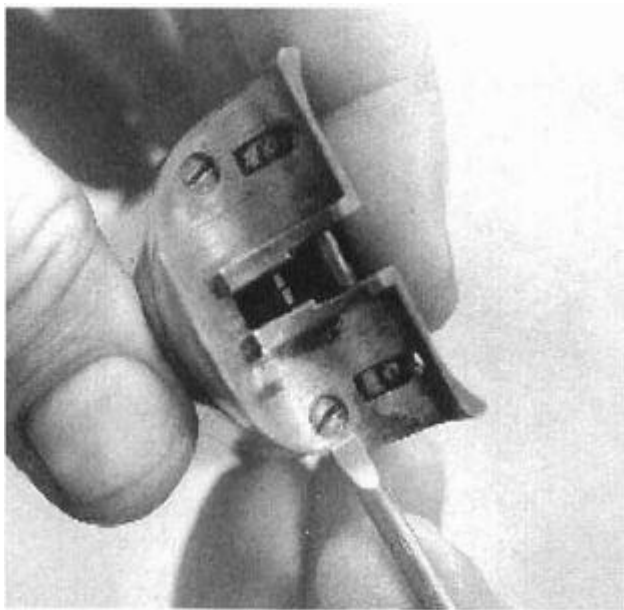
2. Operate the barrel latch lever, tip the barrels open beyond their usual stop point, and remove the barrels upward.



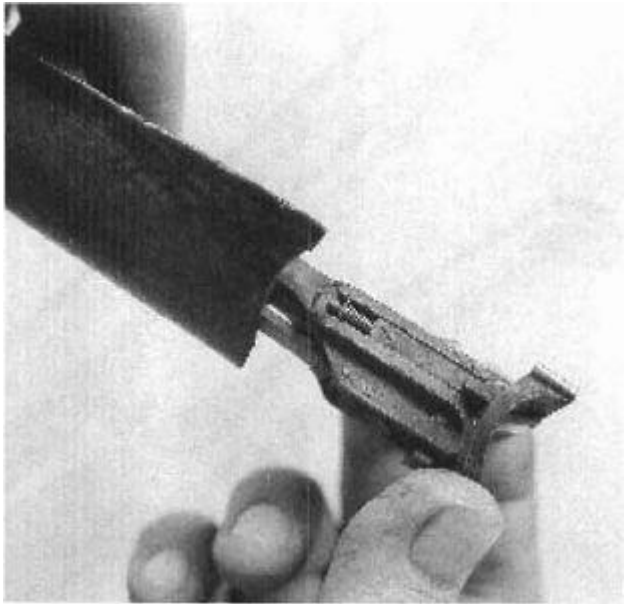
3. Remove the two wood screws on the inside top of the forend piece. If the forend has a steel tip inlay, backing out the small screw at the front will allow the tip to be removed.



- 4.** Remove the two small screws at the rear of the forend iron, in the pivot curve.



5. Remove the forend iron assembly toward the rear.

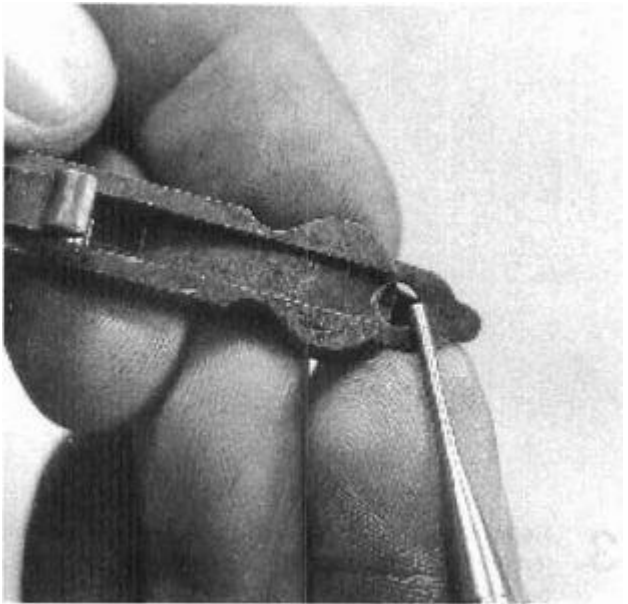




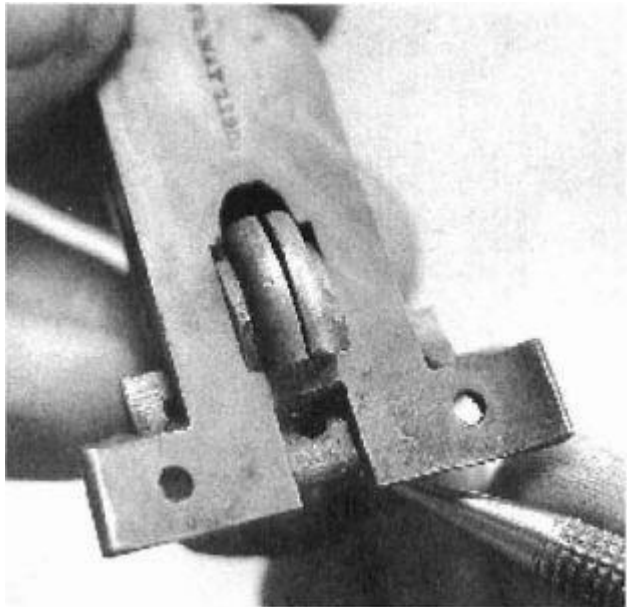


- 6.** Insert a small-diameter drift punch in the forward screw hole, from the top, and nudge the forend latch lever

assembly out downward.  
Work slowly and carefully,  
taking care not to chip the  
wood around its recess.

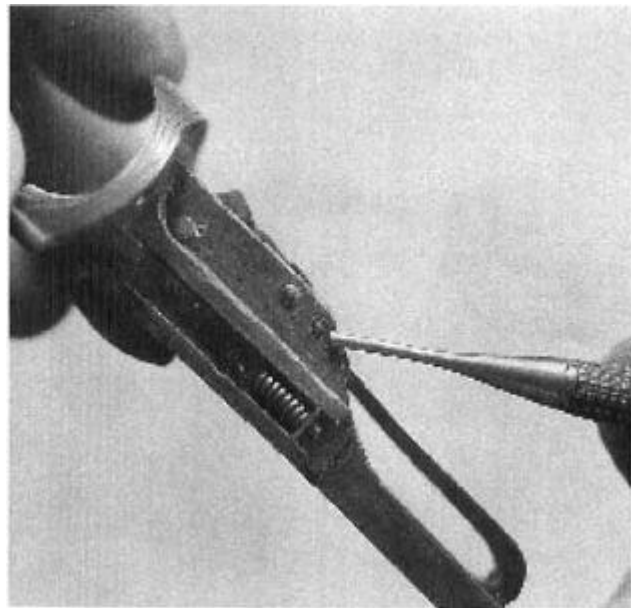


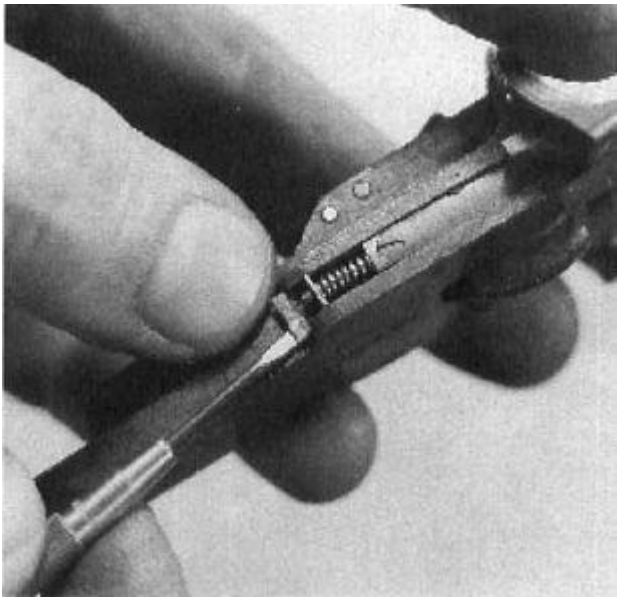
7. The forend latch lever spring is dovetail-mounted on the inside of the latch plate, and is pushed out toward the front for removal. The latch lever is retained by a cross pin, and the lever is taken out downward.
  
8. Push the rear tips of the ejector hammer sears downward to trip the hammers to the rear position, as shown, before disassembling the mechanism.



9. Drifting out the small cross pin on the underside of the forend iron at the front of the mechanism will release the

ejector hammer springs and their cover for removal. Caution: The springs are under tension. Control them, and ease them out. The next pin toward the rear, a slightly larger pin, is the pivot for the ejector hammer sears, and the large cross pin at the rear pivots and retains the ejector hammers. The sears are taken out forward and downward, and the hammers are removed upward. After the hammers are taken out, the cocking plate can be removed toward the front.





**10.** To remove the ejector sear control bars on each side, insert a screwdriver under the front edge of the spring base,

tip its front outward, and remove the base plate toward the front. Back out the small screw on the side of each bar, and the bar, spring, and guide can be slid out toward the front.

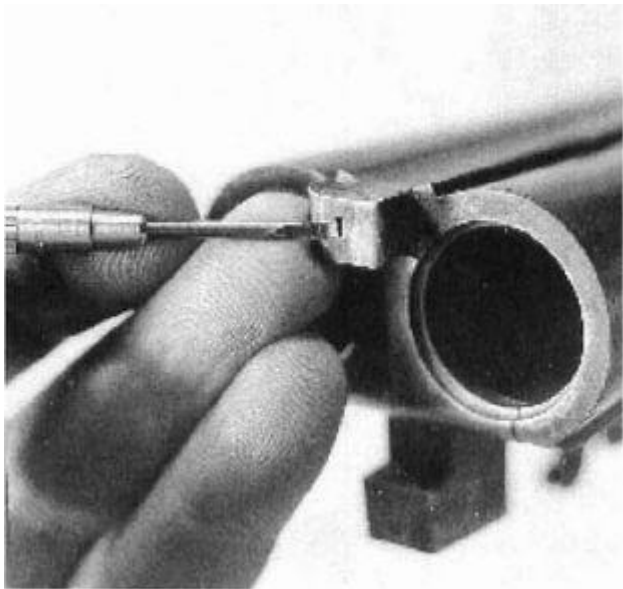




**11.** Remove the large screw on the left side of the barrel underlug, and take off the cocking hook downward, and

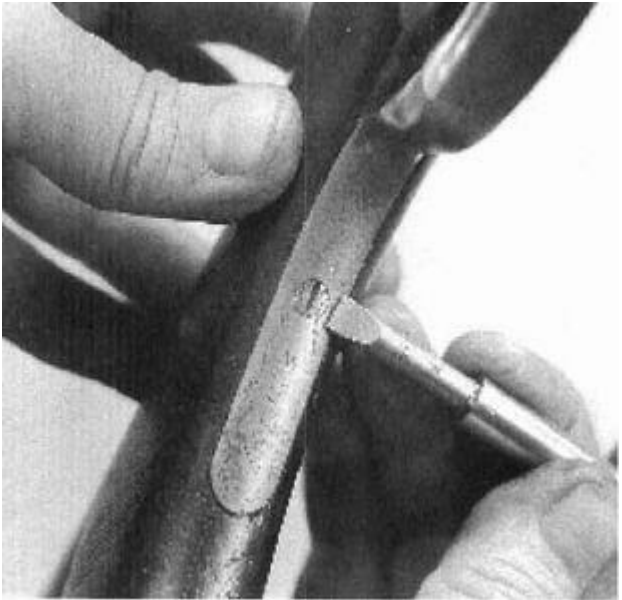
its spring and plunger toward the rear.

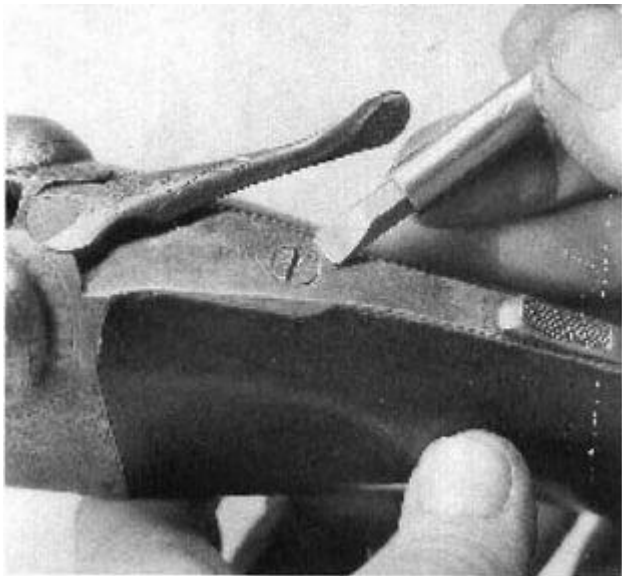
- 12.** Removal of the tiny screw in the top rear extension of the barrel rib will allow a small plate to be slid upward, and the ejectors can then be taken out toward the rear.



**13.** Remove the screw in the rear tail of the trigger guard, move the tail out of its recess in the stock, and rotate the guard

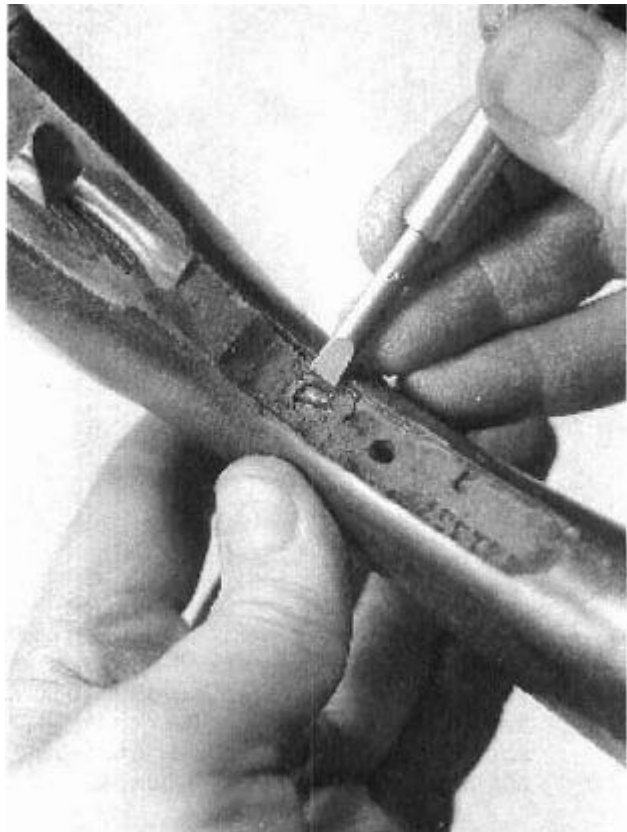
counter-clockwise (bottom view) to unscrew it from the receiver.





**14.** With the barrel latch lever locked in open position, remove the large screw at the center of the upper tang. After

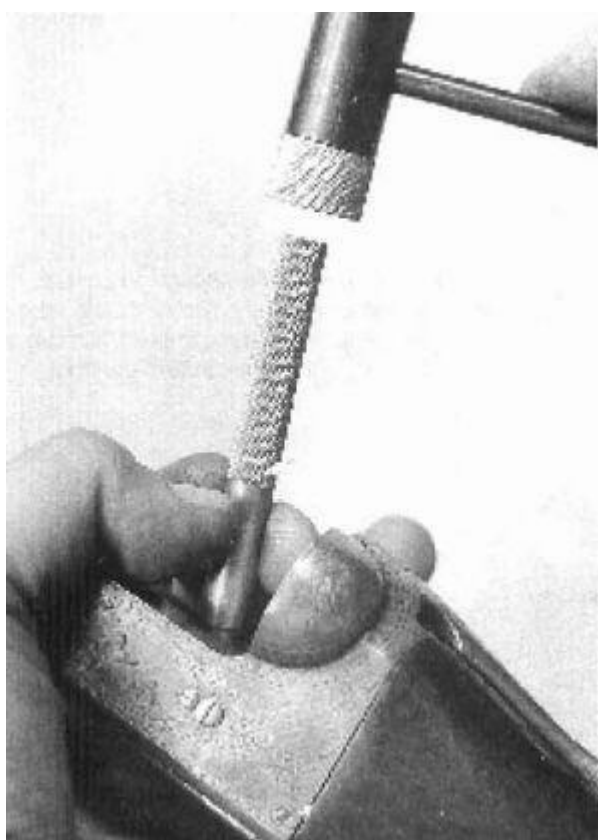
the screw is removed, insert a tool in the slot in the breech face and depress the trip to return the lever to the center position.



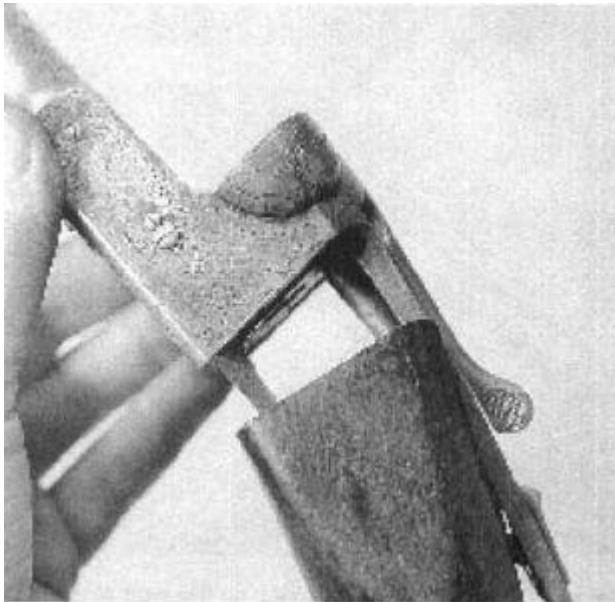
- 15.** Remove the vertical screw on the underside at the rear tip of the trigger plate.
  
- 16.** Remove the three screws on the underside of the receiver, forward of the triggers.





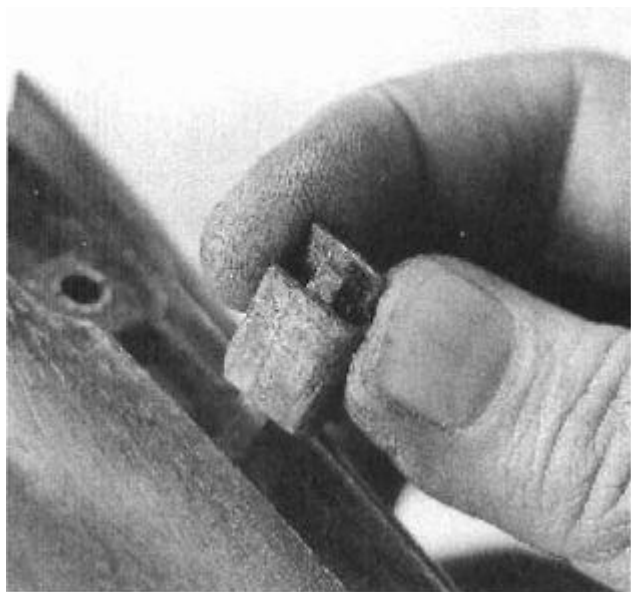


**17.** After the screws are removed, insert a brass or nylon drift punch from the top to nudge the trigger plate off downward. The cocking slide will likely come off with the trigger plate.



**18.** After the trigger plate is removed, move the stock carefully toward the rear, tipping it downward to clear

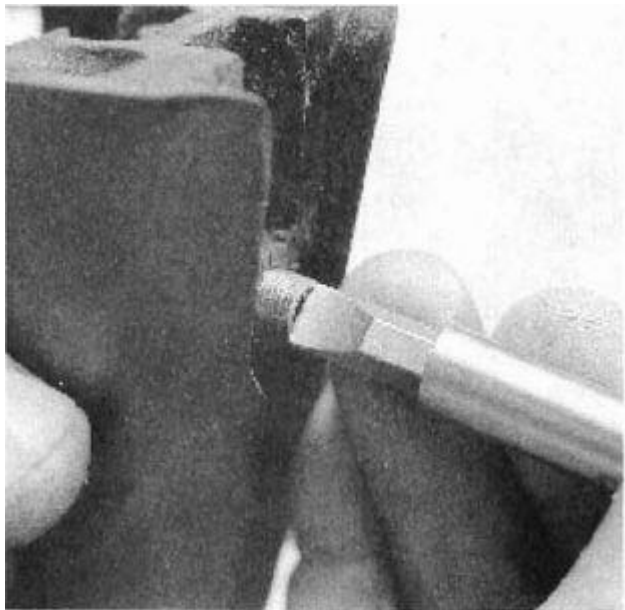
the internal mechanism.



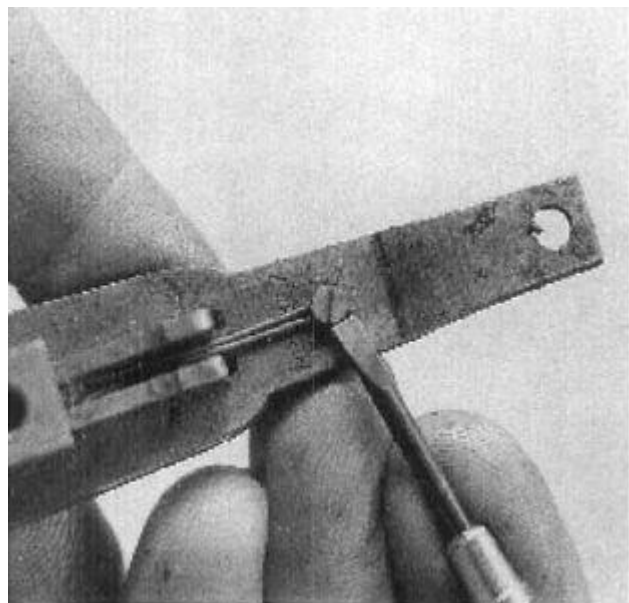
**19.** Tap the safety lever from below to raise its housing

upward out of the stock. When the housing is out, drifting out the cross pin will release the lever for removal.

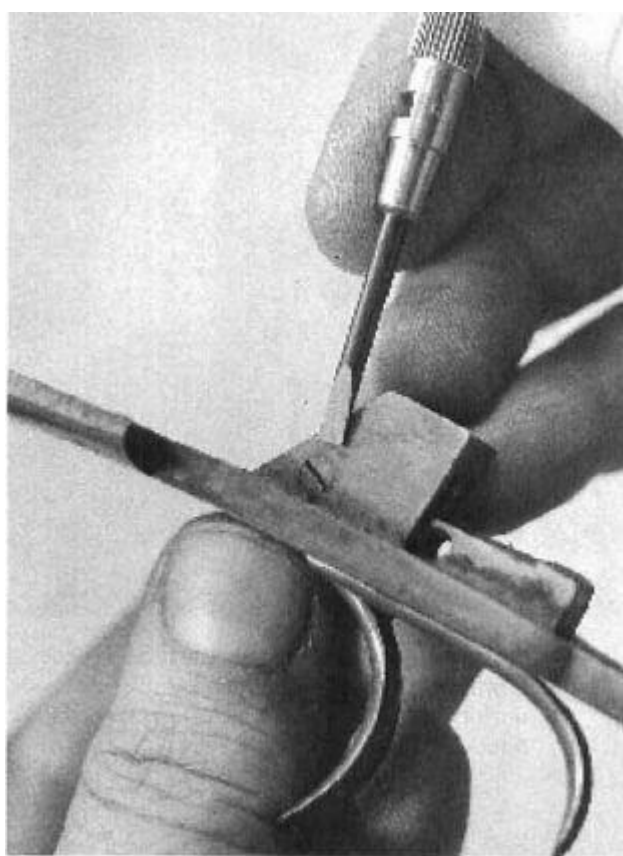
- 20.** Use a screwdriver wide enough to contact both notches, and unscrew the screw sheath from the top of the stock. The automatic safety pin can now be pushed out of the stock toward the front.



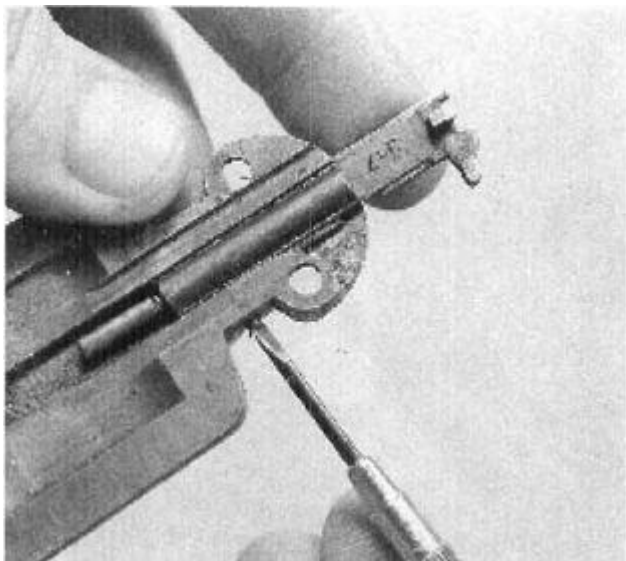
**21.** Remove the small vertical screw behind the triggers to release the double spring for removal.





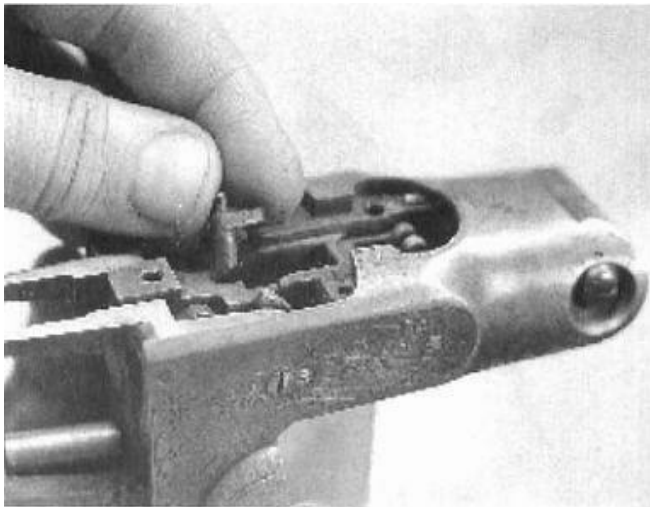


**22.** A cross screw retains the triggers at the front of the block on the inside of the trigger plate.



**23.** Remove the small screw on the right side of the trigger plate, just to the rear of the front lobe, and move the unhooking slide out toward the front, along with its spring and plunger.

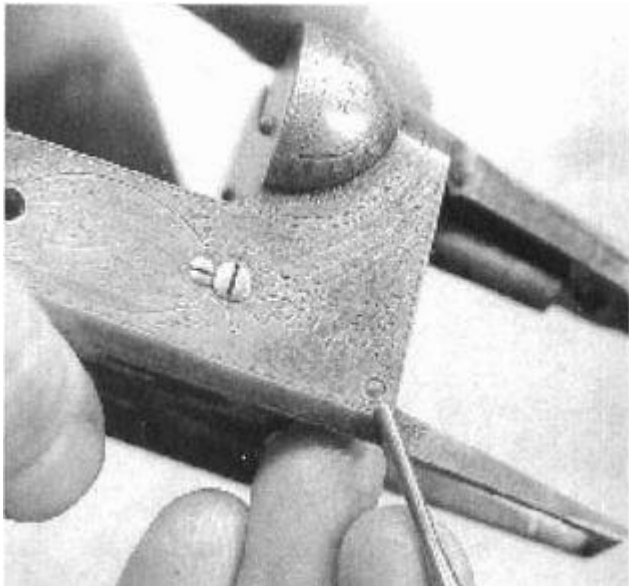
**24.** Lift the barrel latch trip, along with its plunger and spring, out of its recess in the bottom of the receiver. This unit will occasionally come out when the trigger plate is removed, so take care that it isn't lost.



**25.** Remove the two small screws, one on each side, in the forward flat of the receiver. These are the cover screws for the cocking crank pin, which is not removed at this

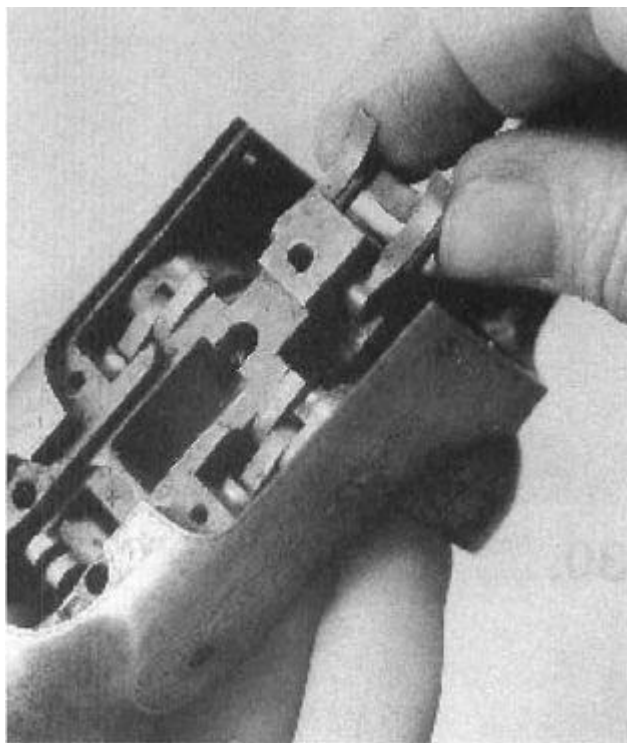
time.





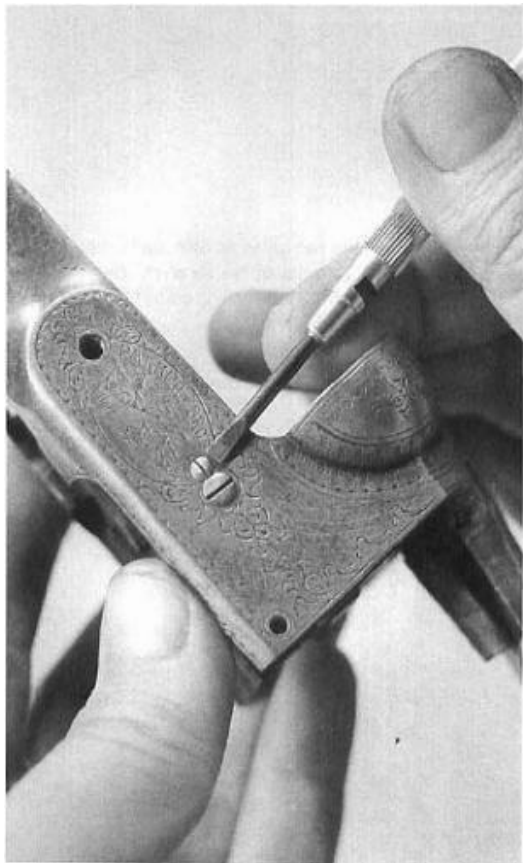
**26.** Push the sear tails upward to drop the hammers, and drift out the cross pin that pivots and retains the sears. Remove

the sears downward.



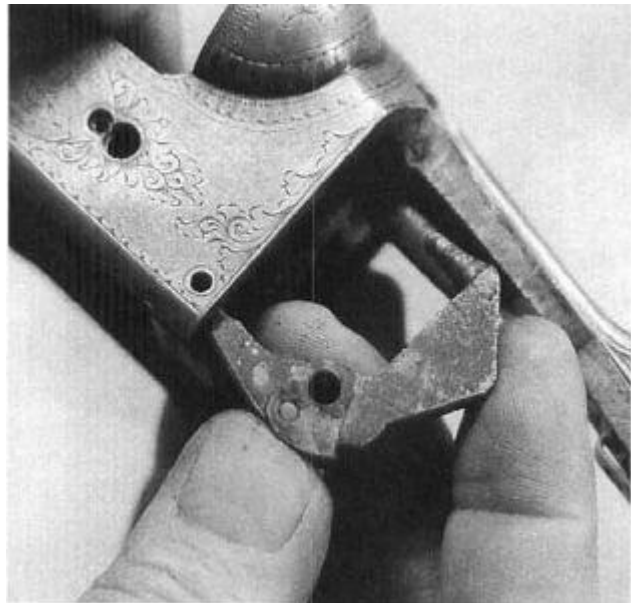
**27.** After the sears are removed, the dual sear spring is slid out toward the rear.

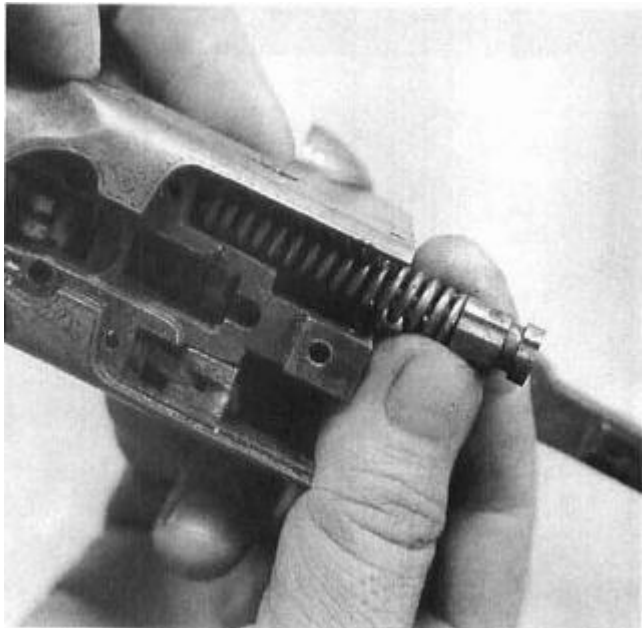




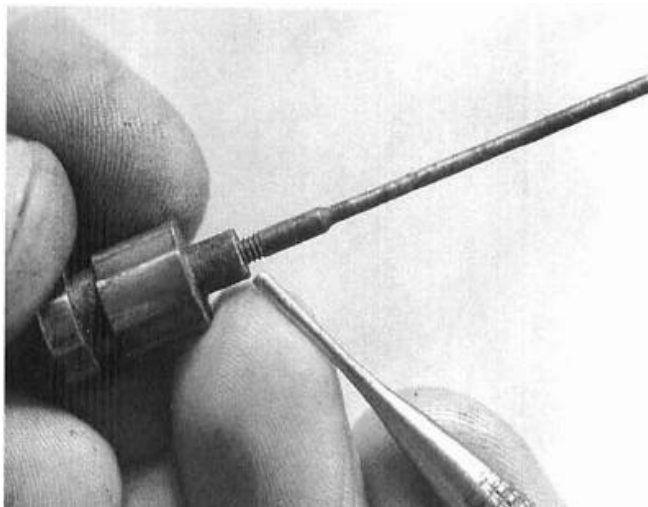
**28.** Remove the lock screw, then back out the hammer pivot screw on each side. While the screws are being taken out, exert pressure on the back of the hammers to ease removal.

**29.** Remove the hammers toward the rear. Drifting out the cross pin in each hammer will release the hammer strut for removal.





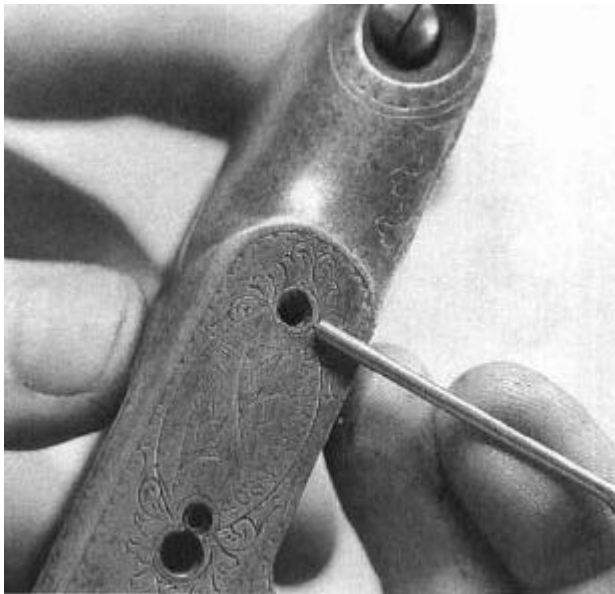
**30.** Remove the hammer springs and their plungers toward the rear.



**31.** Note that the ejector control pin is screwed into the front of each hammer spring plunger, and its depth controls the degree of protrusion at the

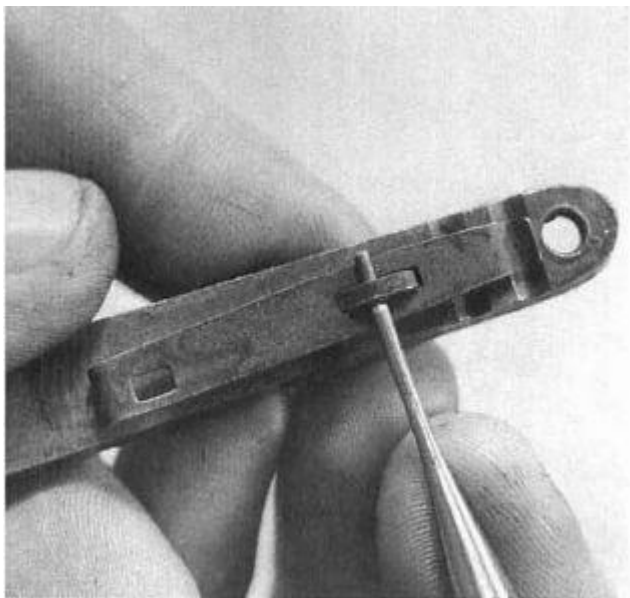
front of the receiver. These pins are best not disturbed in normal disassembly.

**32.** After the hammers and hammer springs have been removed, insert a long-shanked punch into one of the screw holes cleared in step #25, and push out the cocking crank pin toward either side. Remove the cocking crank from the receiver.

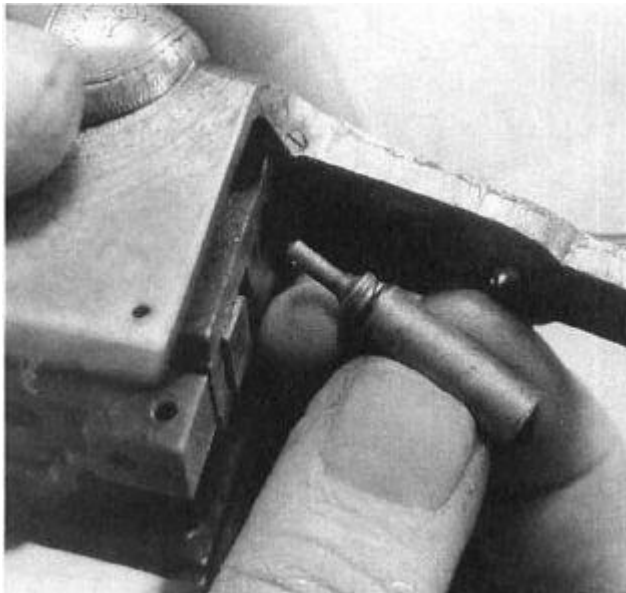


**33.** Push out the small cross pin in the lower projection of the safety button. Remove the safety spring downward, and

the safety button upward.







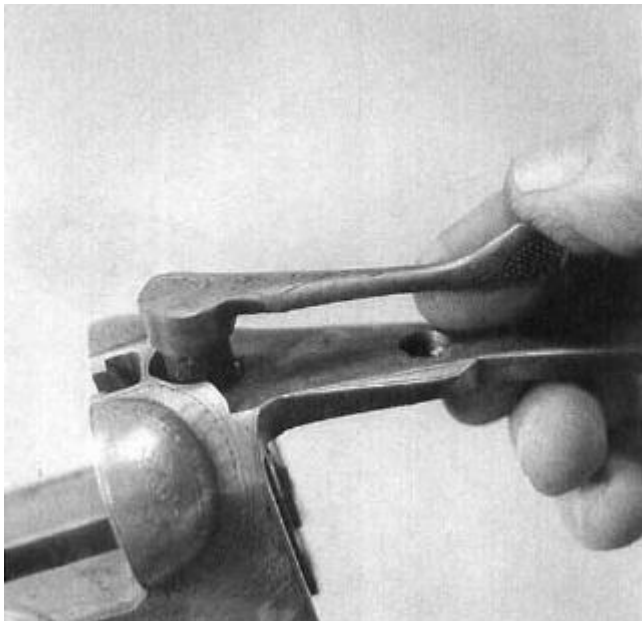
**34.** Tip the barrel latch lever spring housing out of its recess on the underside of the upper tang, and remove the housing,

spring, and plunger toward the rear.

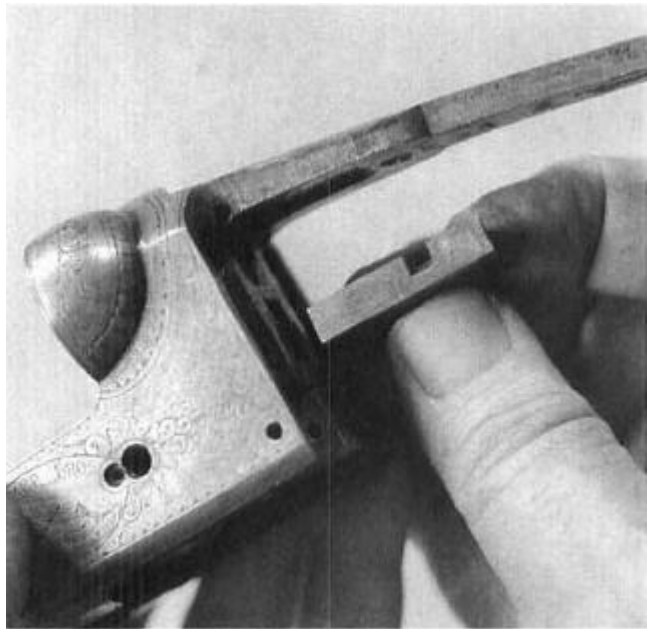


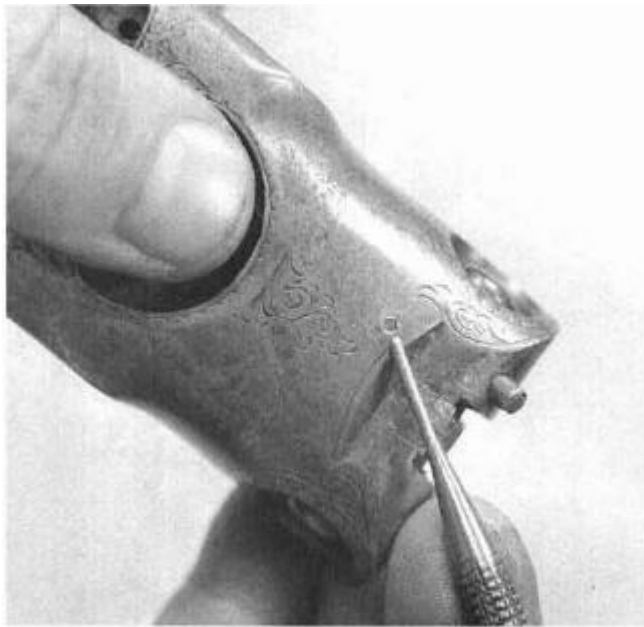
**35.** Remove the small screw on the left side of the receiver, just above the left hammer recess.

**36.** Remove the barrel latch lever upward. If the lever is tight, do not exert any pressure on the rear tail. If necessary, it can be nudged by inserting a drift into the spring plunger opening.



**37.** Slide the barrel latch block straight out toward the rear.

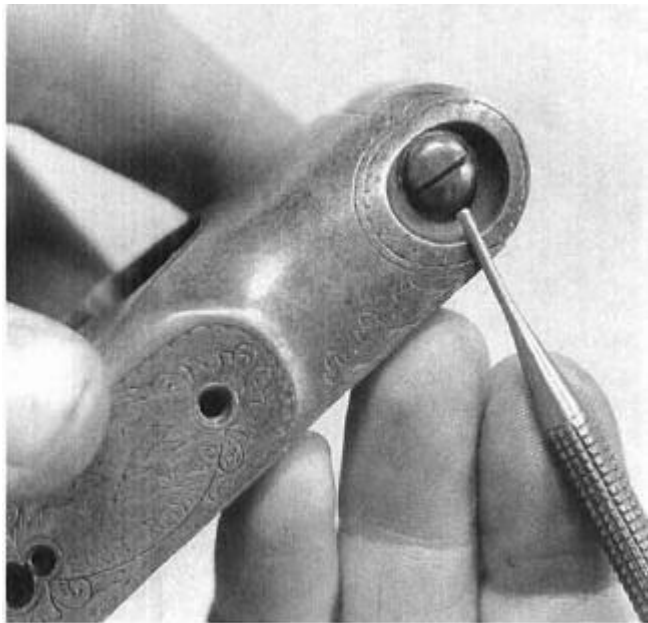




**38.** On the Parker shown, the unhooking pin and its spring are retained by a vertical pin

which is driven out upward to release the pin and spring. This was originally a vertical screw, removed upward. The unhooking pin and its spring are taken out toward the front.



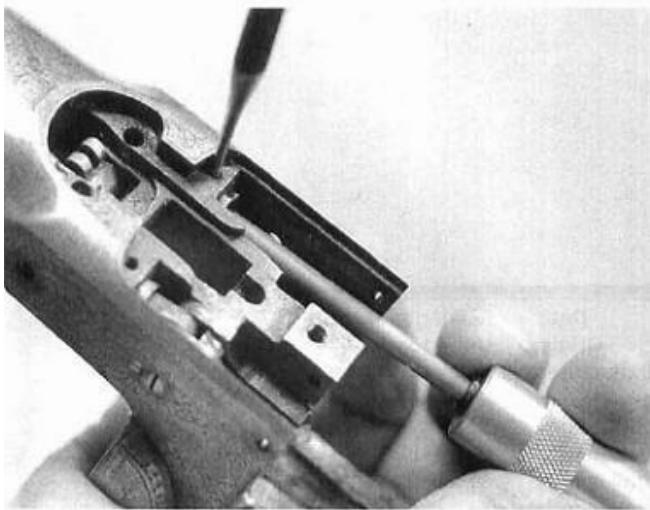


**39.** The barrel pivot cover screw can be removed, and the barrel pivot pushed out

toward the right, but in normal disassembly this system is best left in place. Removal of the pivot will free the ejector actuator ("joint roll"), if necessary for repair.

# Reassembly Tips:

1. When replacing the hammer springs, use a tool to depress the follower, and insert a drift into the hole provided on each side to retain the follower while the hammer is installed. Caution: Take care not to dislodge the drift from the hole during this operation, as the hammer springs are powerful.

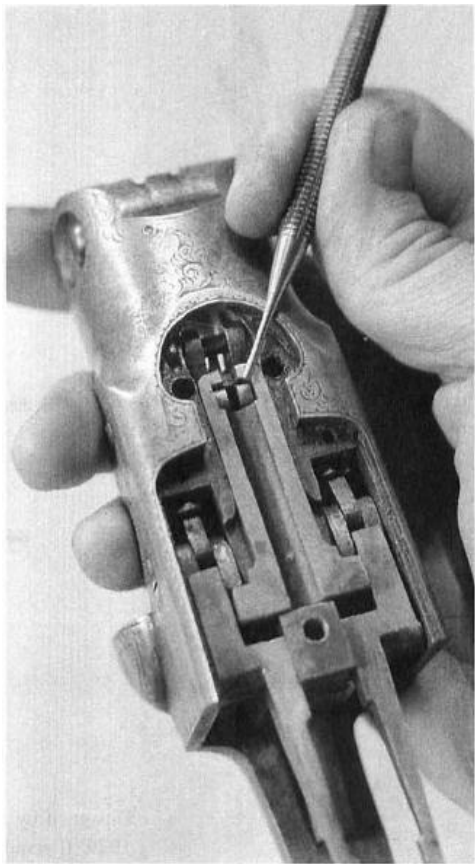


When replacing the stock, be sure the upper extension of the safety lever engages its slot in the safety spring. To check this, with the stock held against the upper tang, move the safety, and see

that the lever changes position.

When replacing the forend latch lever assembly, be sure the rear extension of the lever engages inside its recess in the latch tumbler.

**2.** When replacing the cocking slide on the underside of the receiver, be sure the opening in its forward end engages the lower lobes of the cocking crank, as shown.



# Remington Model

10





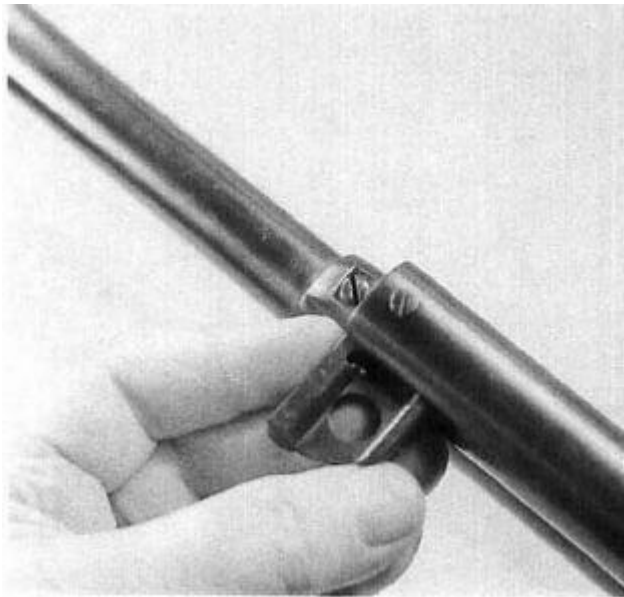
<b>Data:</b>	Remington Model 10
<b>Origin:</b>	United States
<b>Manufacturer:</b>	Remington Arms, Ilion, New York
<b>Gauges:</b>	12 only
<b>Magazine capacity:</b>	6 rounds
<b>Overall length:</b>	48 inches
<b>Barrel length:</b>	30 inches (others offered)
<b>Weight:</b>	7-3/4 pounds

Designed by John D. Pedersen, this

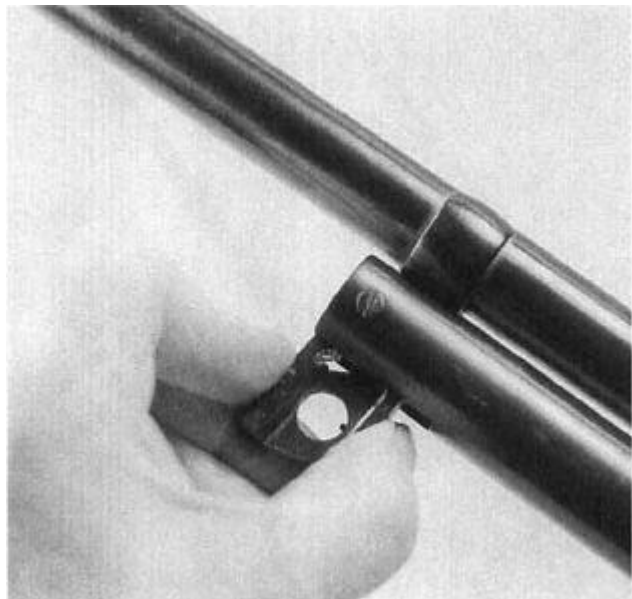
shotgun was made from 1907 to 1929. It acquired its "Model 1910" name in 1911. It was produced in several styles and grades, including a World War I U.S. Army version with a handguard and bayonet mount. Mechanically, the design is brilliant but fairly complicated. If the amateur is not particularly adept, it might be wise to leave disassembly to a competent gunsmith.

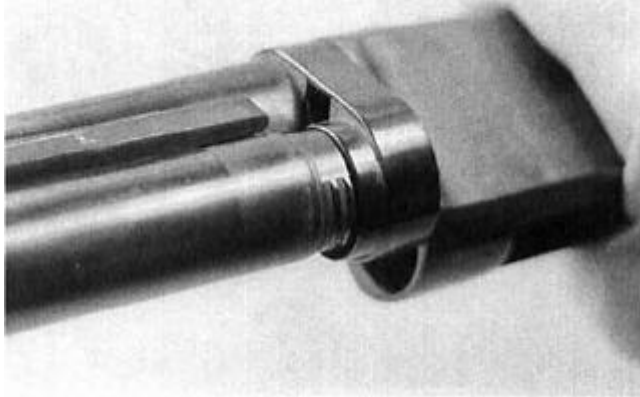
# Disassembly:

1. Push the magazine lever detent button, and turn the magazine lever outward, as shown.



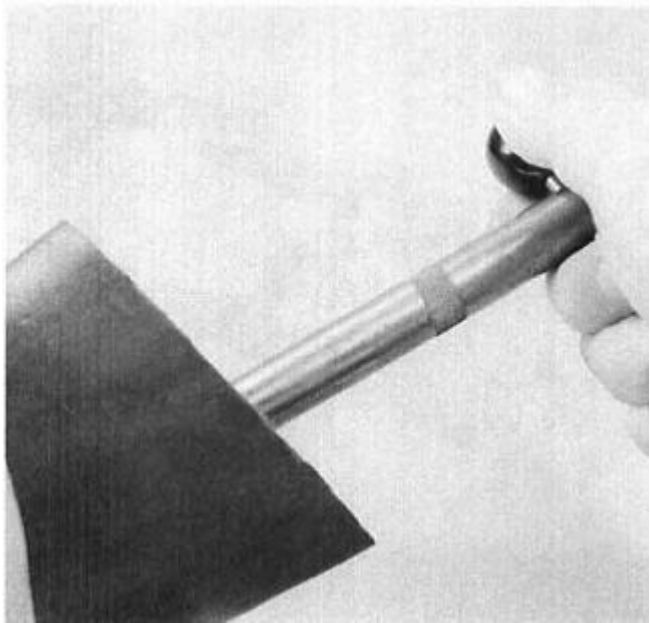
2. Turn the magazine lever downward, and pull the magazine assembly forward until it stops.





3. Move the action slide forward until it stops, and turn the barrel and magazine assembly

to the position shown (a quarter-turn clockwise, rear view). Remove the assembly toward the front.

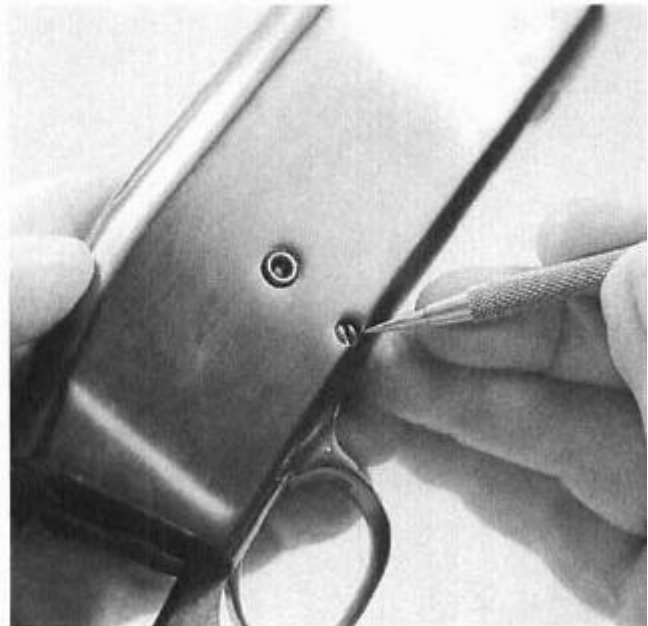


**4.** It is possible to remove the stock and trigger guard assembly as a unit by taking out the mounting screws, but I prefer to take off the stock separately. Use a B-Square stock tool, as shown, or a long screwdriver, to back out the stock mounting bolt (removal of the butt-plate is assumed). Take off the stock toward the rear.

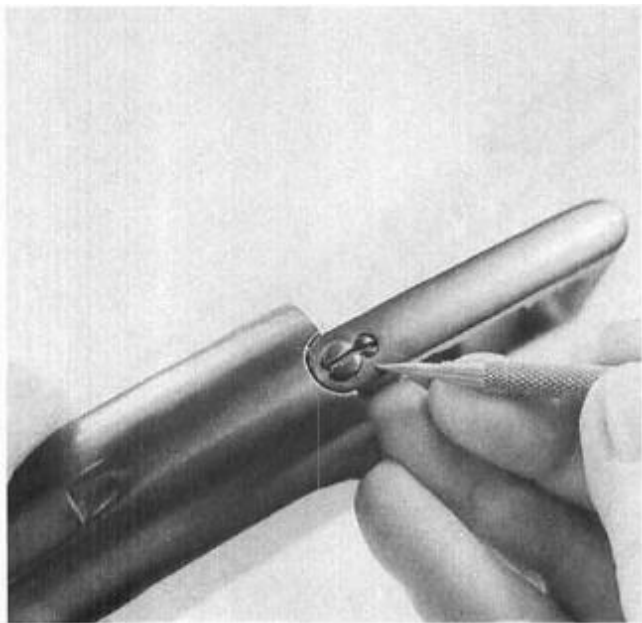
**5.** If the striker is cocked, pull the trigger to drop it to fired position. Remove the cross-



screw at the front of the trigger guard unit. Note that on some guns, a small lock-screw will have to be taken out first.

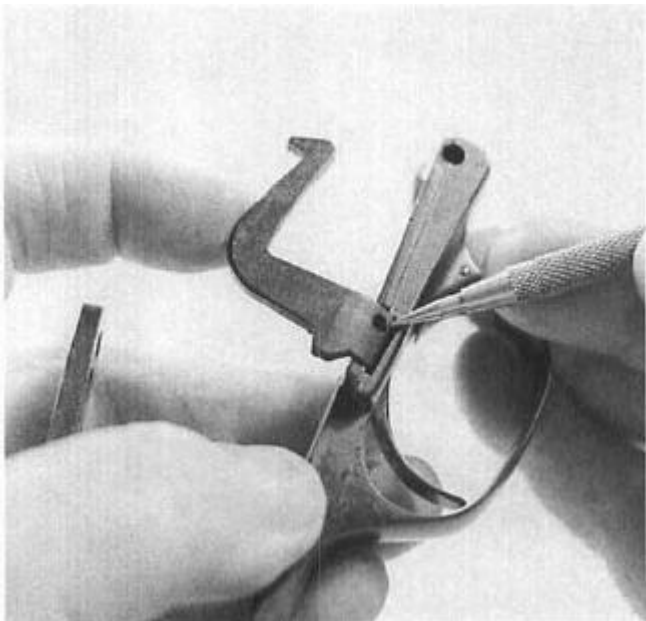


6. Remove the lock screw and main screw at the top rear of the receiver.



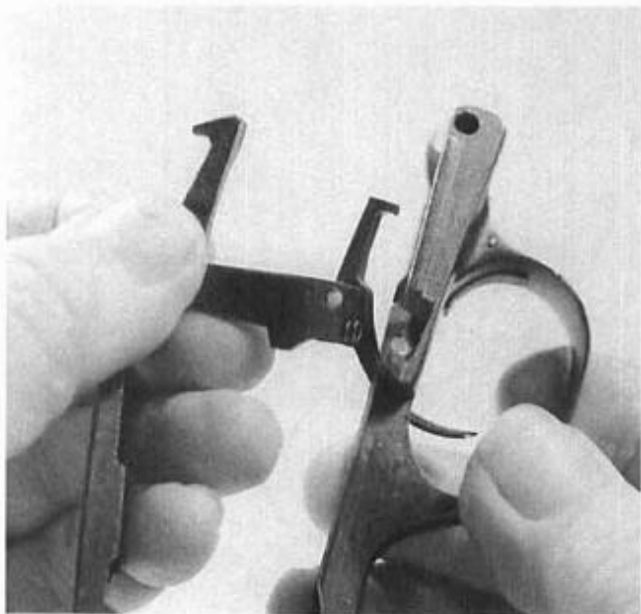


**7.** Move the trigger assembly out rearward.

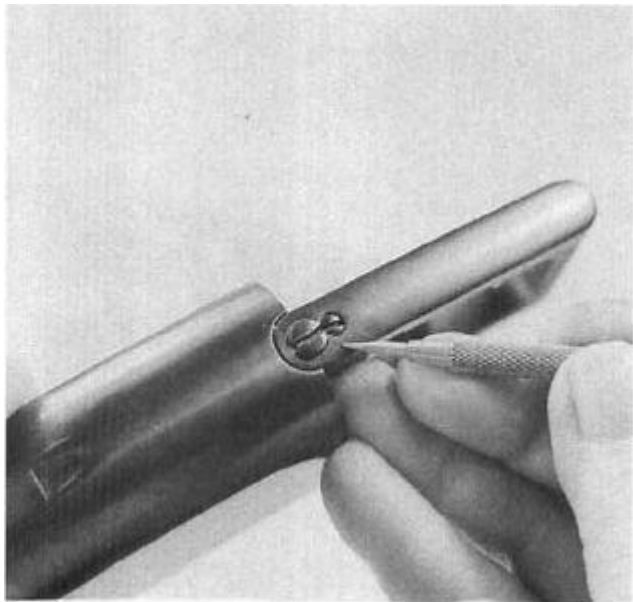


**8.** Push out the trigger pin toward the left.

**9.** Remove the trigger upward. The small coil trigger spring will likely come out with it.



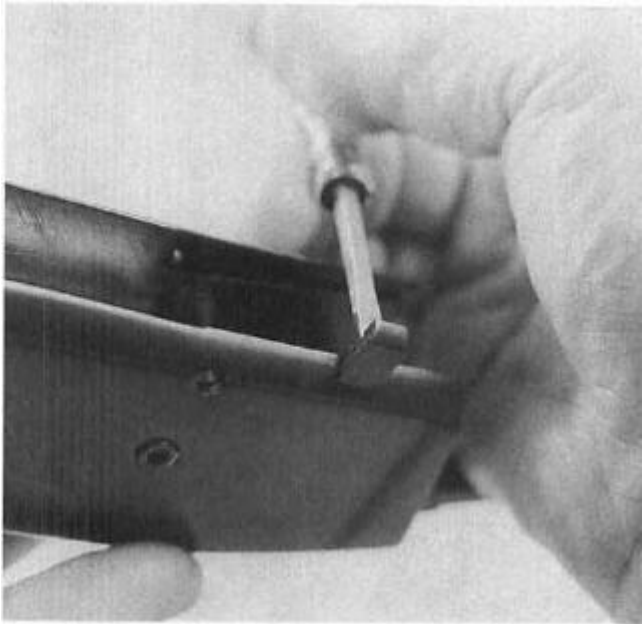
# 10. Drift out the safety cross pin.





**11.** Remove the safety toward the front. The safety positioning ball and spring are staked in place inside the safety, and

they are not routinely removed.

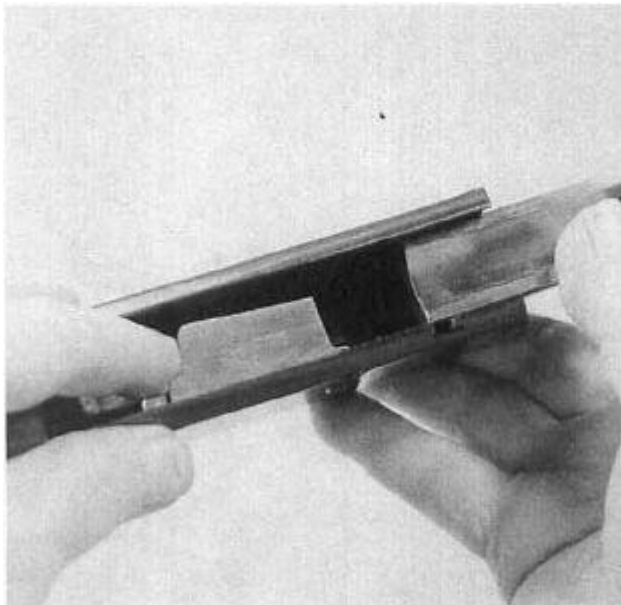


**12.** Insert a small tool to lift the

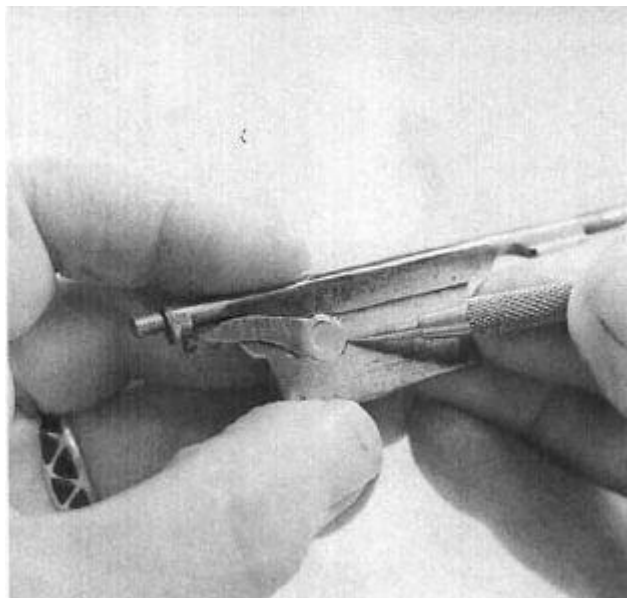


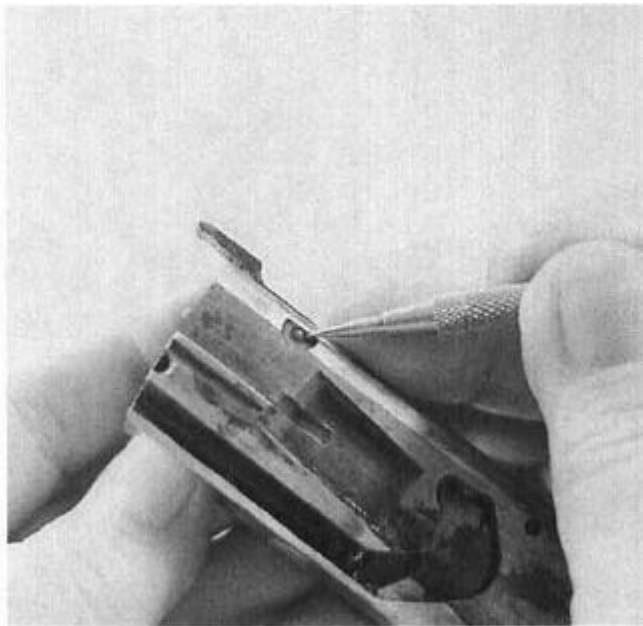
pivot base at the rear of the carrier, and remove it.

- 13.** With the carrier in the position shown, remove the bolt and carrier, together, toward the rear.



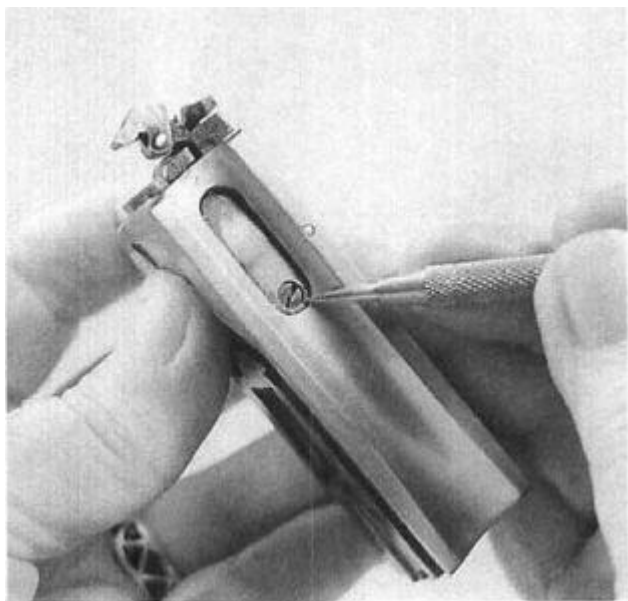
**14.** The shell stop is riveted in place on the carrier, and the rivet is finished-over. This part is not routinely removed.





**15.** Drifting out this cross pin will allow the extractor and its V-type blade spring to be

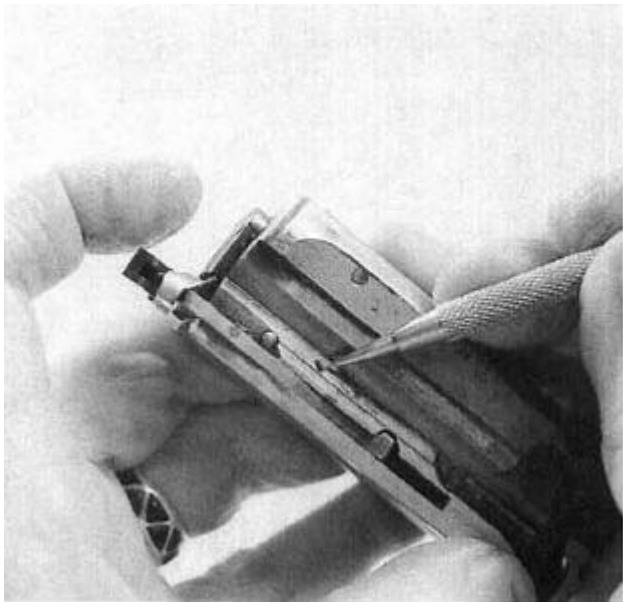
removed upward.



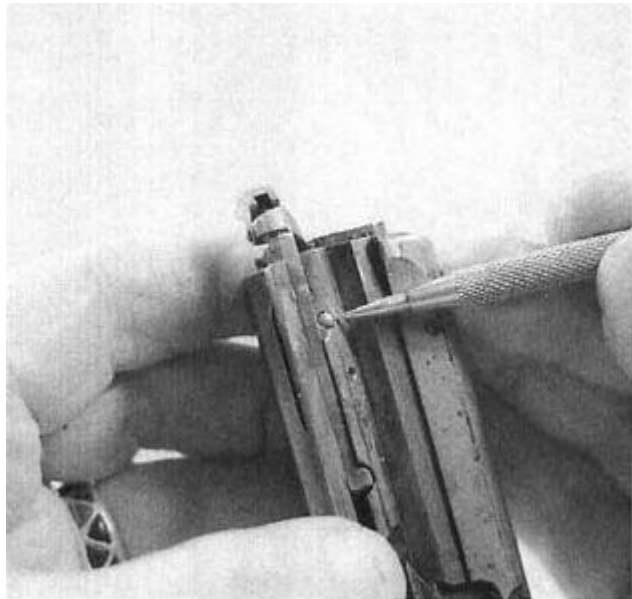
**16.** Remove this screw in the bottom of the bolt, and take out

the sear spring.

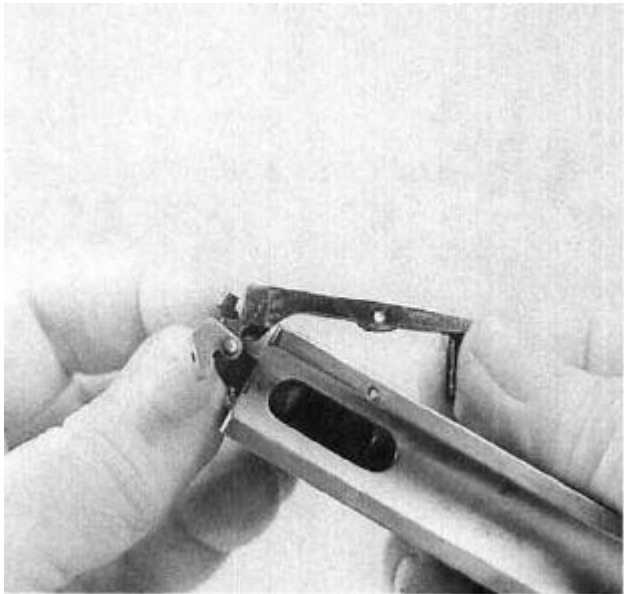
- 17.** Drift out the action bar lock pin downward. Note that the lock is not removed at this time.



**18.** Drift out the sear cross pin.

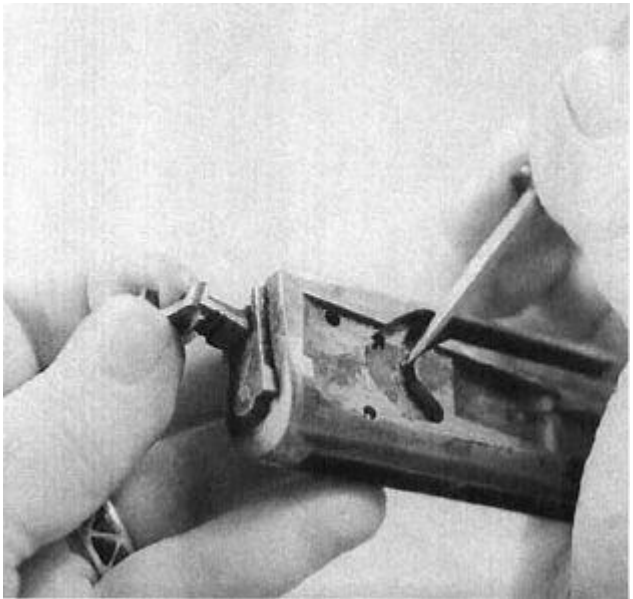






**19.** The sear can now be moved slightly rearward, and the action bar lock can be tipped outward at the front to clear its

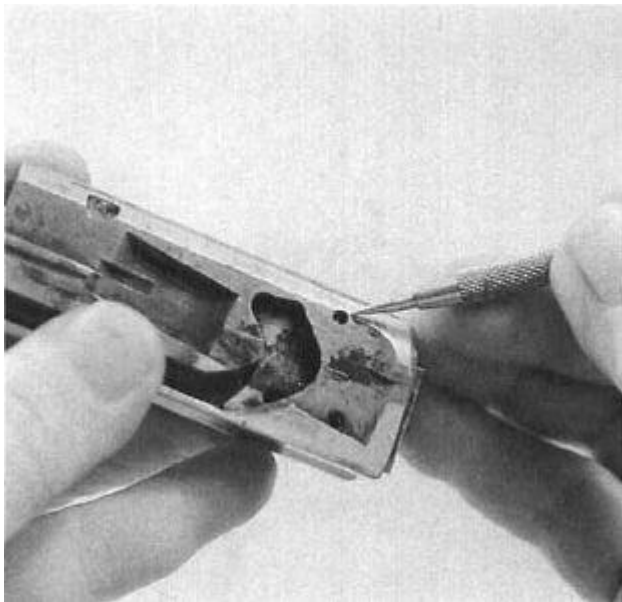
cross-shaft for removal. Note that the release lever and spring at the rear of the lock are mounted with a riveted pin that is removed only for repair.



**20.** Insert a tool on the left side of the bolt to pry the striker assembly slightly rearward, and remove the sear toward

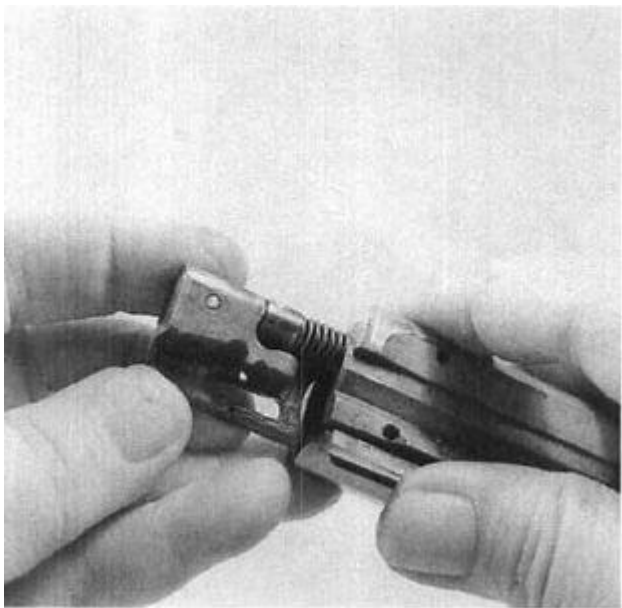
the rear.

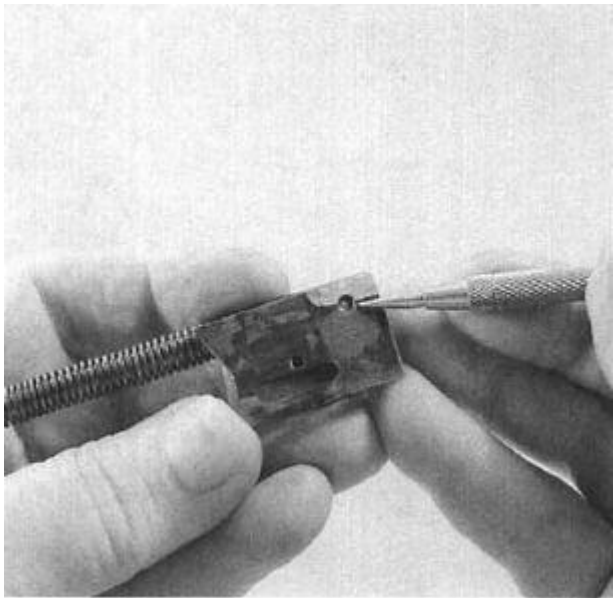
- 21.** Drift out the cross pin at the top rear of the bolt.



**22.** Remove the striker and firing pin unit toward the rear. It may be tight, and may require some prying. If so, use non-marring

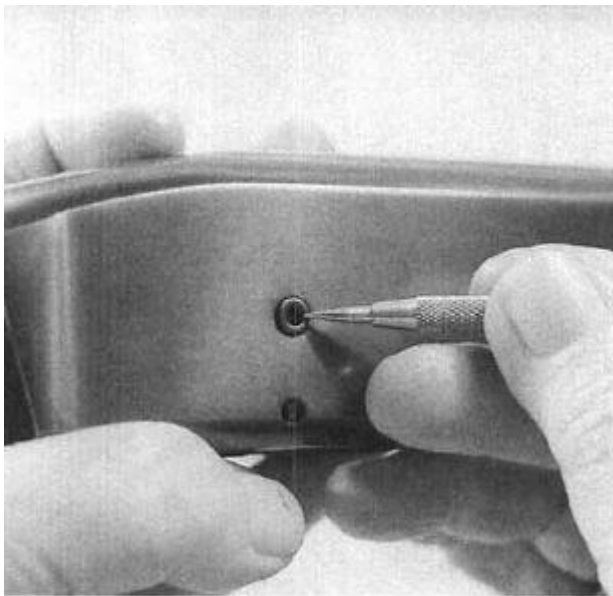
tools.





**23.** Drifting out this pin will release the firing pin and spring from the striker unit. Caution: Control the firing pin

and spring. This is best done with the assembly in a padded vise.

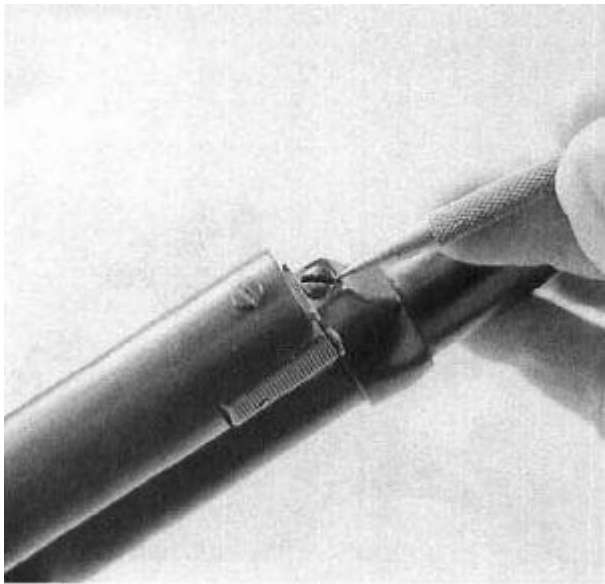




**24.** There is a coil spring inside the carrier release button, and both are retained by a flat steel bar inside the receiver. The bar is removed rearward. Another part that cannot be photographed is the shell guide spring, inside the top of the receiver at the front. It is removed by using a drift in the hole at the rear of the spring to nudge it out toward the front.

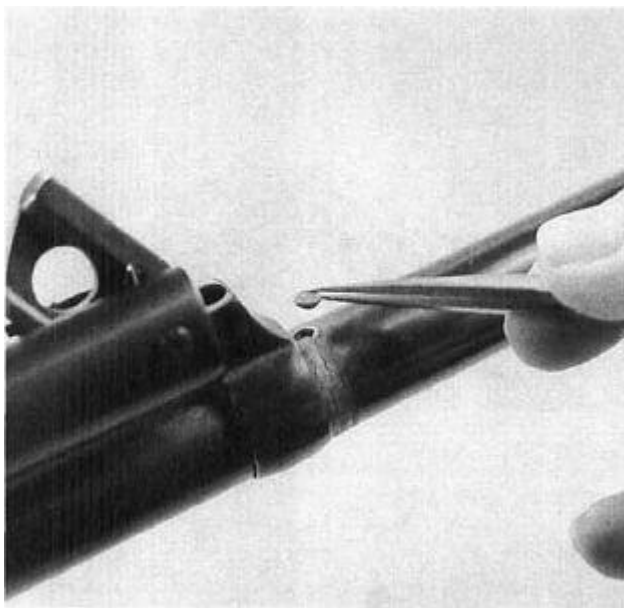
**25.** It is possible to detach the magazine tube and action slide assembly from its hanger on

the barrel by turning the magazine lever forward. However, it is assumed that complete takedown is the object here. Turn the lever back into locked position, just to get it out of the way. Remove the hanger lock screw.



**26.** Use a nylon mallet to nudge the hanger slightly rearward, just enough to clear the lock button. Lift the lock button out

of its recess.





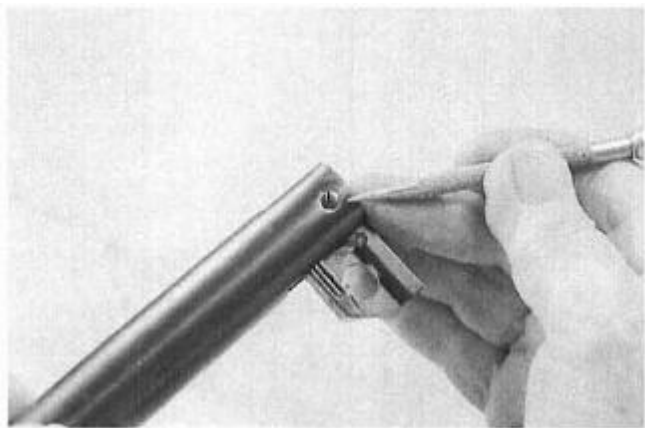
**27.** The magazine hanger may be tight. Use a non-marring drift to nudge it off toward the

front. If it is very tight, the barrel finish will be damaged. If this is the case, it can be left in place. Again, note that the magazine tube assembly can be taken off without removing the hanger.



**28.** The magazine tube assembly is easily removed from the hanger as shown.

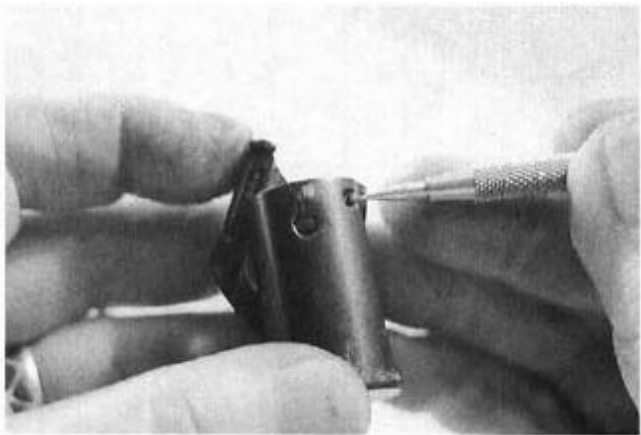
**29.** Remove the two screws that retain the magazine tube end piece. If the end piece is not tight, restrain it, as the magazine spring will push it out.



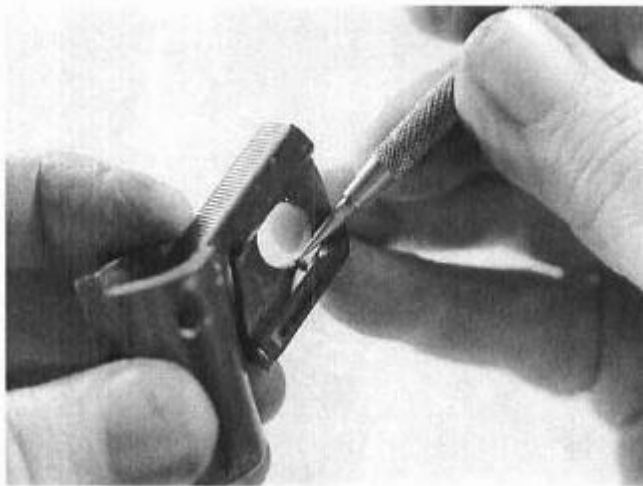


**30.** Remove the end piece, magazine spring, and the magazine follower.

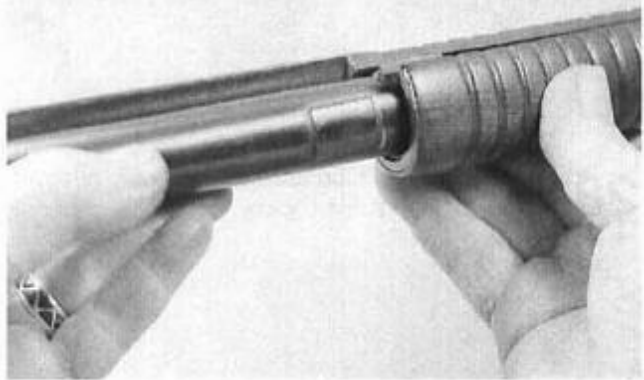




**31.** Drifting out this cross pin will release the magazine lever for removal.

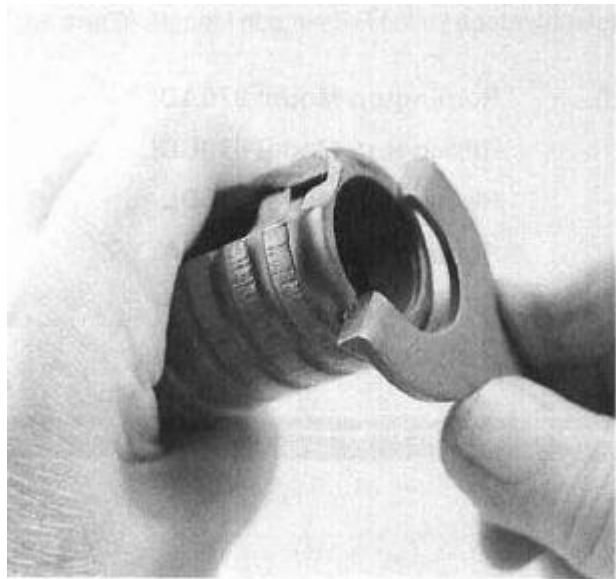


**32.** Drifting out this pin will release the magazine lever latch button and its small coil spring for removal.



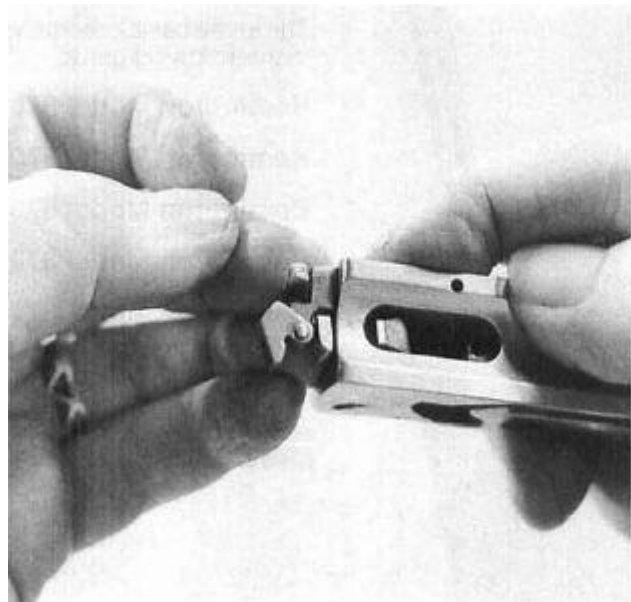
**33.** Turn the magazine tube until the action slide stop lugs align with their exit cuts, and take off the action slide toward the front.

**34.** With a Brownells wrench, as shown, or a piece of steel plate, unscrew the forend cap. The action slide tube and bar are then taken out rearward.

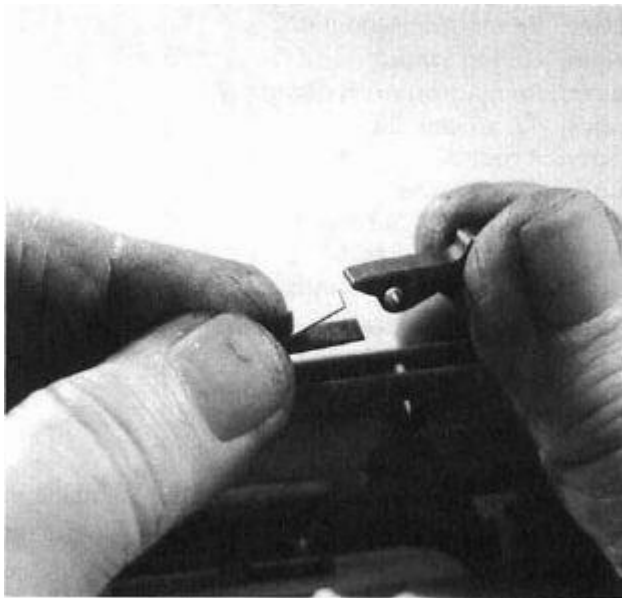


# Reassembly Tips:

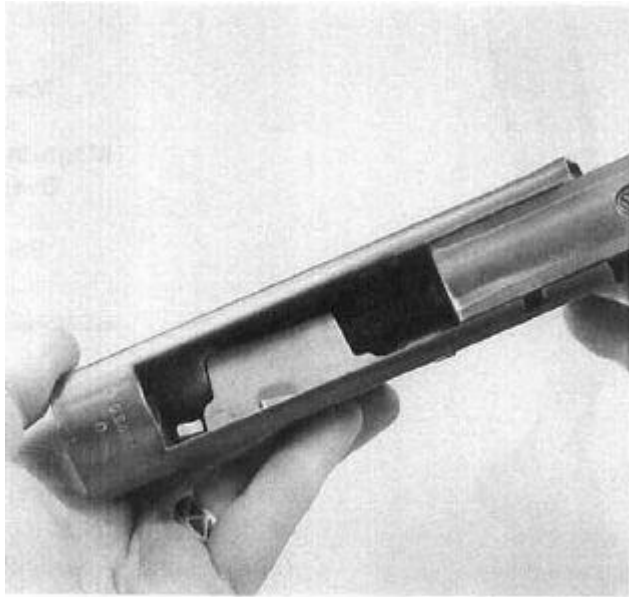
1. The sear and action bar look are best re-installed before the striker assembly is put back in. They are moved into place together, before either pin is installed, and their engagement must be as shown. Remember that the sear cross pin is put back only after the striker assembly is in place, as it also passes through it.







**2.** The shorter arm of the extractor spring goes at the top, as shown.



- 3.** The bolt and carrier must be re-inserted together. Be sure the front pivot-tip of the carrier enters its hole inside the front

of the receiver. As the bolt is moved forward, the carrier must turn into its recess in the side of the receiver. When the rear carrier pivot base is put in, be sure its outer edge is even with the outside of the receiver, to clear the entry recess for the trigger unit.

# Remington Model

**870**



## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Remington Model 870 also apply to the following guns:

**Remington Model 870 LT-20**

**Remington Model 870AP**

**Remington Model 870D**

**Remington Model 870F**

**Remington Model 870SF**

**Remington Model 870TB**

**Remington Model 870ADL**

**Remington Model 870BDL**

**Remington Model 870DL**

**Remington Model 870SA**

**Remington Model 870 SP**

**Remington Sportsman Pump**

Data:	Remington Model 870
Origin:	United States
Manufacturer:	Remington Arms Company
Gauges:	12, 16, and 20
Magazine capacity:	4 rounds
Overall length:	48-1/2 inches (with 28-inch barrel)
Barrel length:	26 to 30 inches

Weight: 6-1/4 to 7-1/2  
pounds

Introduced in 1950 to replace the Model 31, the Remington 870 has been made in a wide variety of sub-models, but all have the same basic mechanism. The trigger group design is particularly notable, having made its first appearance in the Model 11-48 autoloader, and used with only slight variation in every Remington rifle and shotgun (auto or



slide action) made since. The Model 870 is a simple and reliable gun, and is still in production today.

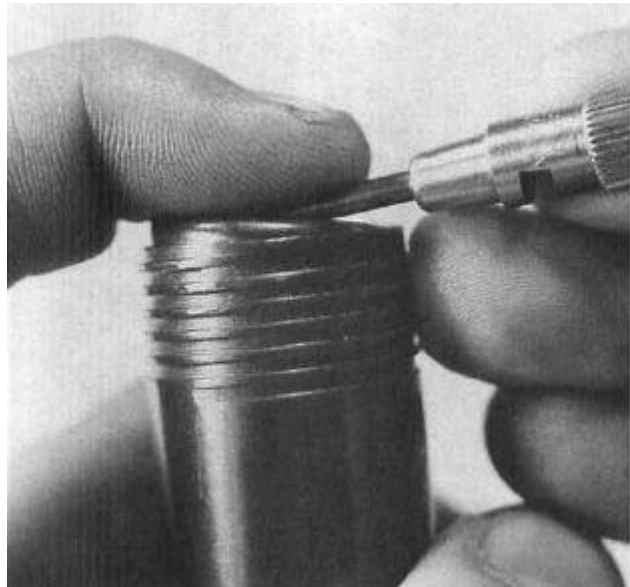
# Disassembly:

1. Open the action, and unscrew the magazine cap and remove it. Pull the barrel straight out toward the front.



2. Insert a screwdriver to pry the magazine spring retainer from inside the front of the magazine tube. Move the screwdriver to pry the retainer in equal increments, to avoid

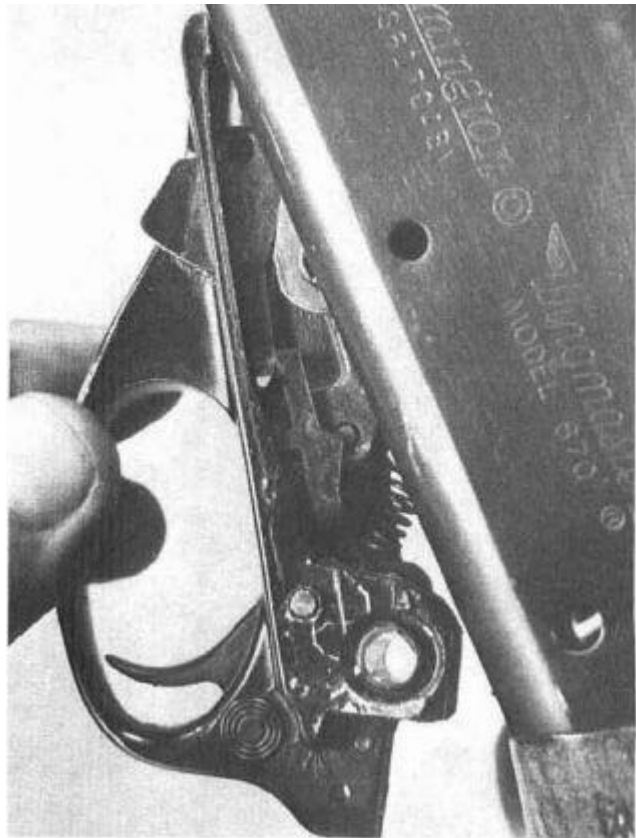
warping it. Caution: The magazine spring is under tension, so control the retainer and ease it out. Remove the spring and follower toward the front.





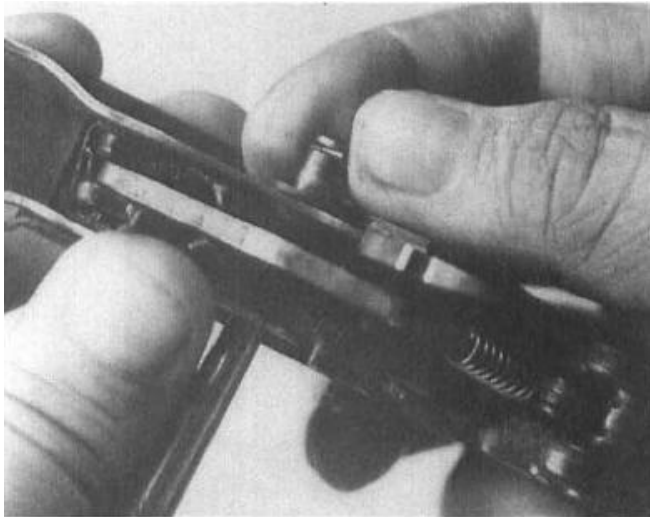
3. Move the action slide back to the front, bringing the bolt to the closed position, and set the safety in the on-safe position. Push out the large and small

cross pins at the lower edge of the receiver toward either side.



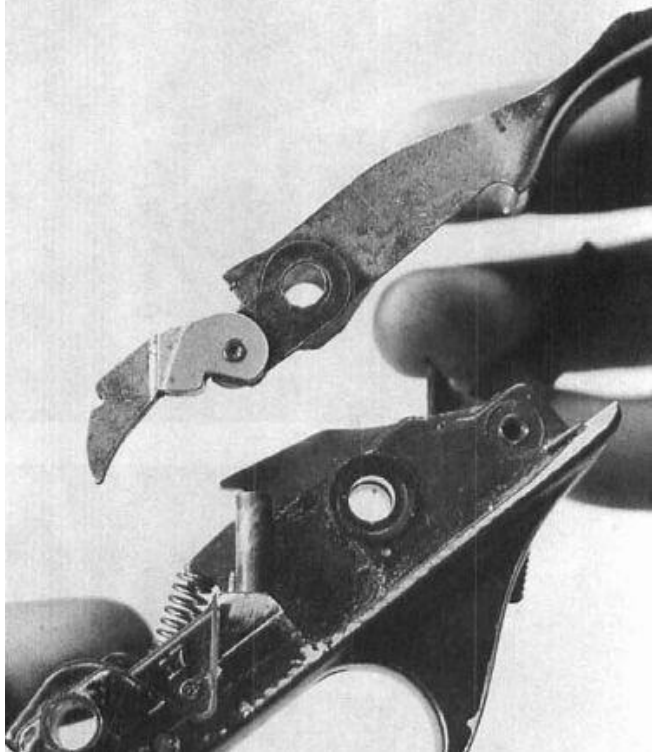


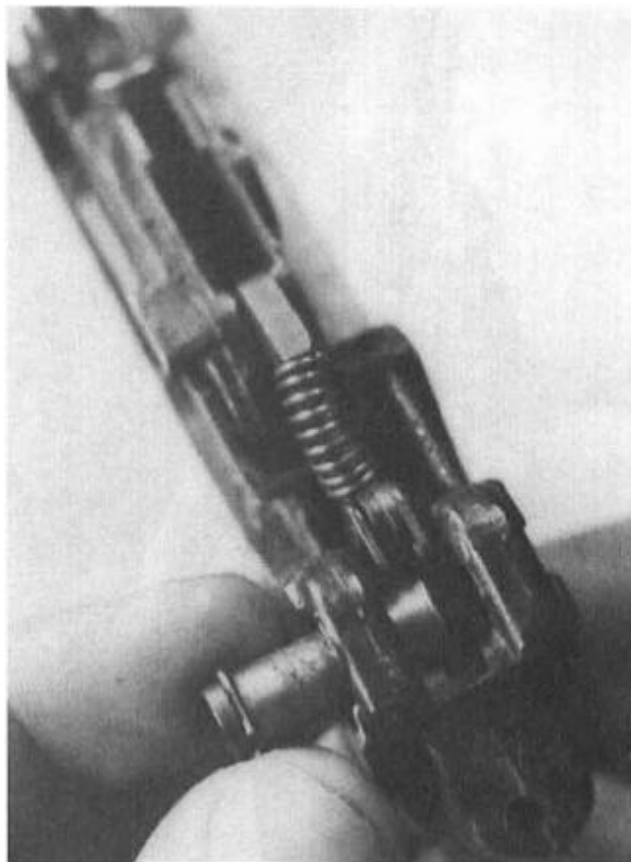
4. Remove the trigger group downward, tilting it slightly as it emerges to clear the arm of the slide lock on the left side.
  
5. Remove the trigger group downward, tilting it slightly as it emerges to clear the arm of the slide lock on the left side.



- 6.** Slowly release the tension of the carrier spring, and remove the carrier upward and toward the front. Remove the carrier spring and plunger from the right side of the trigger

housing. Note that the carrier dog and its washer/plate are retained on the right rear wing of the carrier by a cross pin that is riveted in place. If removal is necessary for repair, be sure the wing of the carrier is well supported.

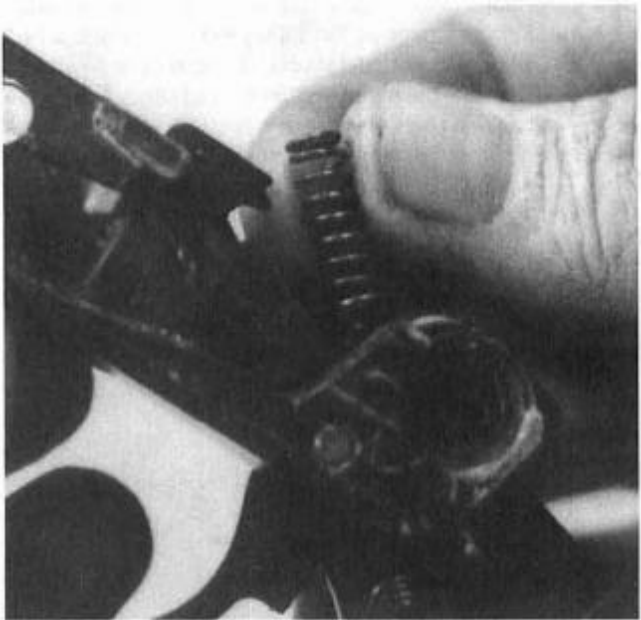




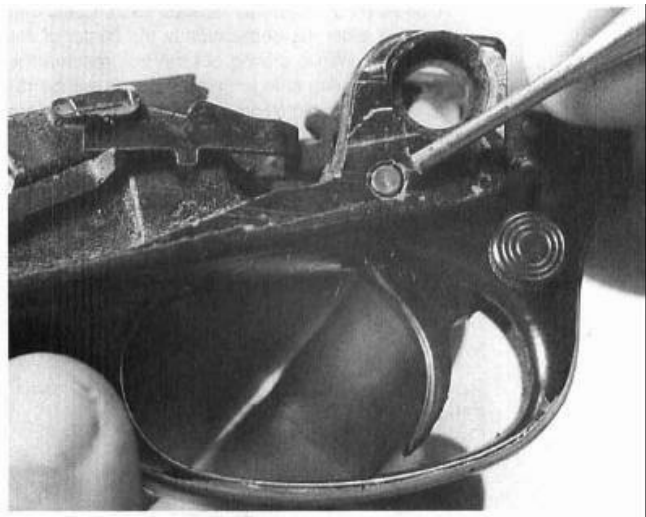
**7.** Move the safety to the off-safe position, restrain the hammer, pull the trigger, and ease the hammer down to the fired position. Keeping the trigger pulled to the rear, push out the rear cross pin sleeve toward the left and remove it.

**8.** Removal of the rear cross pin sleeve will allow the top of the trigger to move to the rear beyond its normal position, easing the tension of the combination sear and trigger spring. This spring is now

easily detached from its studs on the sear and trigger and is removed upward.



**9.** Drift out the trigger cross pin.

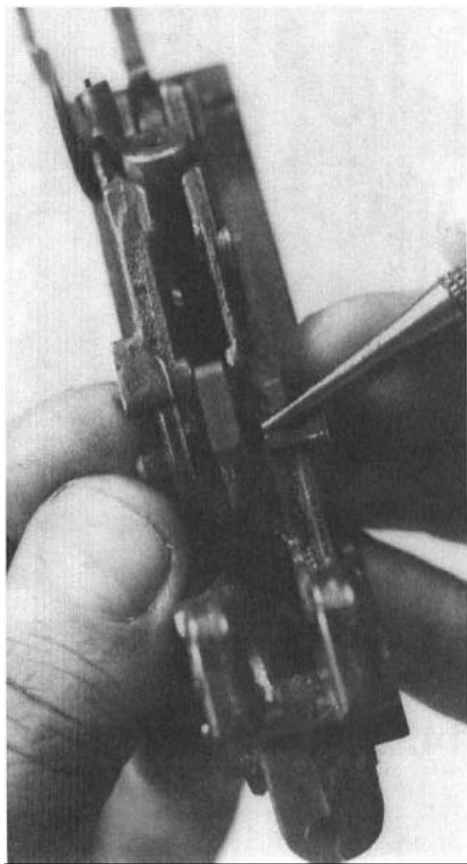






- 10.** Remove the trigger and its attached connectors upward. It will be necessary to tilt the trigger slightly to clear the left connector arm past the shelf on the housing. The cross pin

that retains the connectors on the trigger is riveted in place, and should be removed only for repair. If removal is necessary, be sure the top of the trigger is supported firmly, and take care not to deform the upper extension of the trigger.

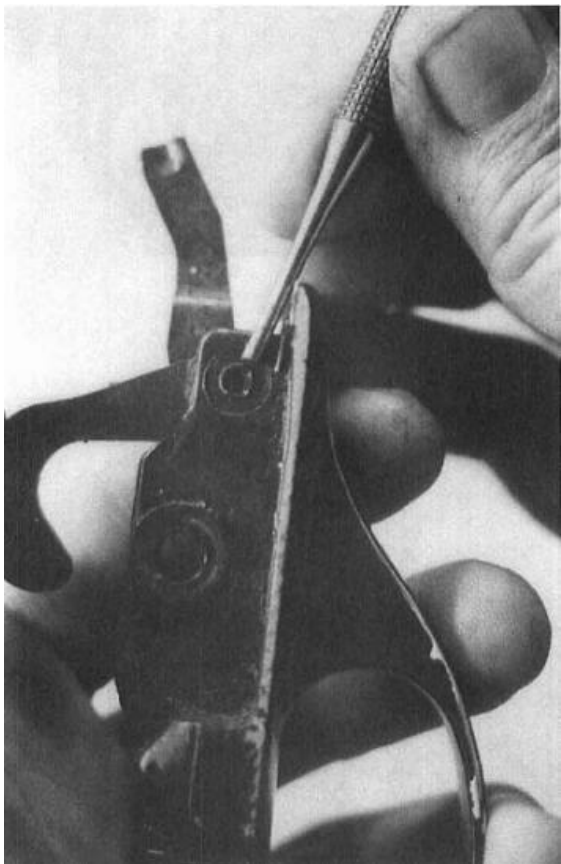


**11.** The sear cross pin is accessible by angling a drift punch on the right side into the top of the carrier spring hole, and the sear pin is nudged out toward the left for removal with smooth-jawed pliers. The sear is then removed upward.

**12.** The hammer pivot is also the pivot and retainer for the slide latch/disconnector, and the pin is riveted on the right side over a washer which is set into a recess. Unless absolutely necessary for

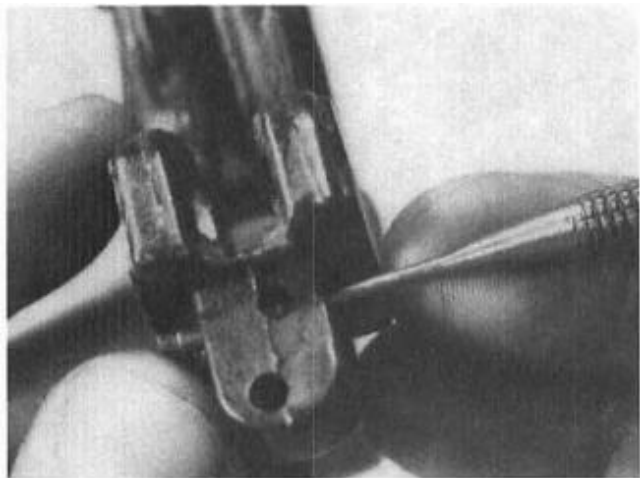
repair, this system should be left in place. If it must be removed, be sure the assembly is well supported on the left side when driving out the cross pin, and take care not to deform the slide latch. Use a drift that will enter the depression at the center of the cross pin. While driving out the pin, restrain the hammer spring plunger, as the spring will be released as the pin clears the slide latch. When the pin is out, ease the spring out slowly, and remove the plunger, spring, hammer, slide latch, and the round-wire slide

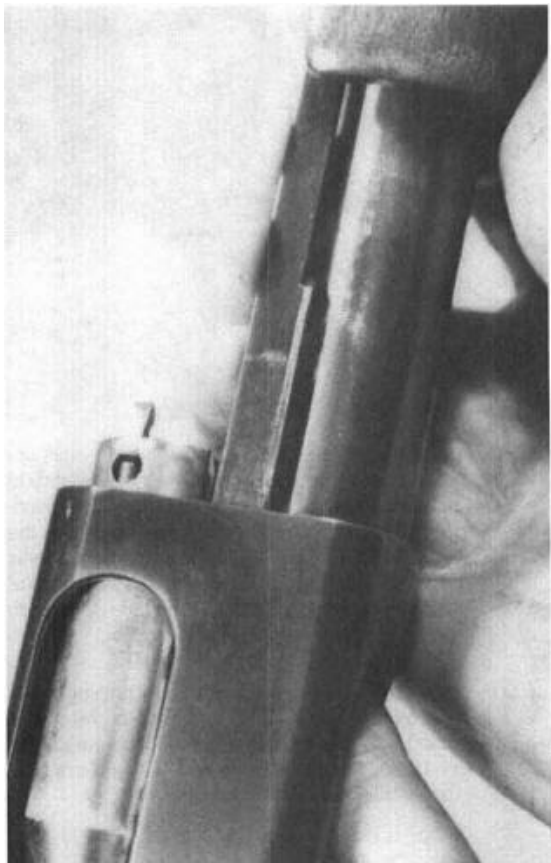
latch spring.



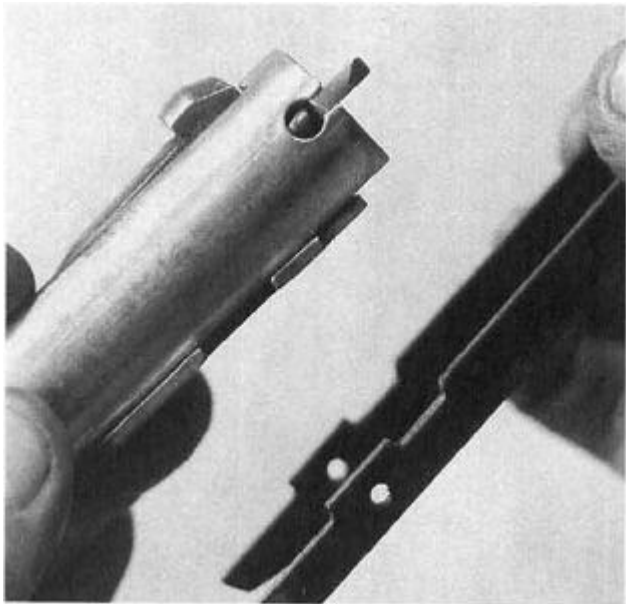
**13.** Push out the small cross pin at the rear of the housing, and remove the safety spring upward, along with the safety detent ball, if it can be shaken out. Remove the safety button toward either side. If the ball can't be taken out upward, wait until the button is removed, then use a small tool to push the bail downward, for removal through the button tunnel. Take care that the small ball isn't lost.





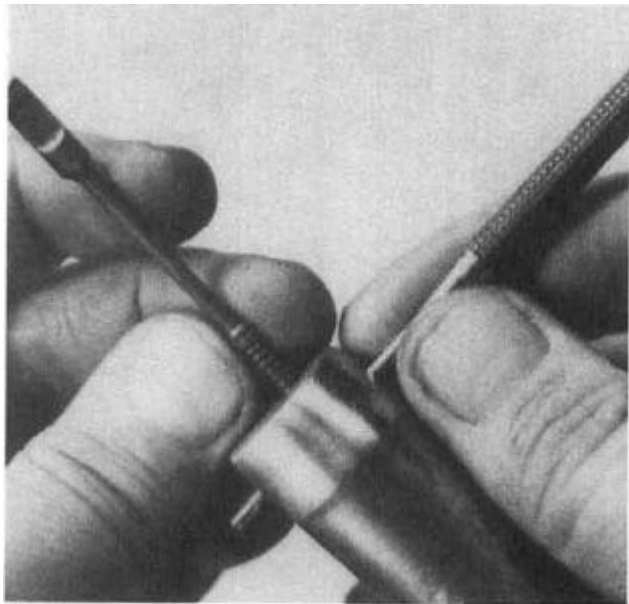


- 14.** Insert a fingertip through the underside of the receiver to depress the left shell stop, and move the bolt and slide assembly out toward the front.
  
- 15.** As soon as the slide bars are clear of the receiver, the bolt and locking slide are easily detached from the bars.



**16.** The locking slide is easily removed from the bottom of the bolt.





**17.** Drift out the vertical pin at the rear of the bolt downward, and remove the firing pin and its return spring toward the

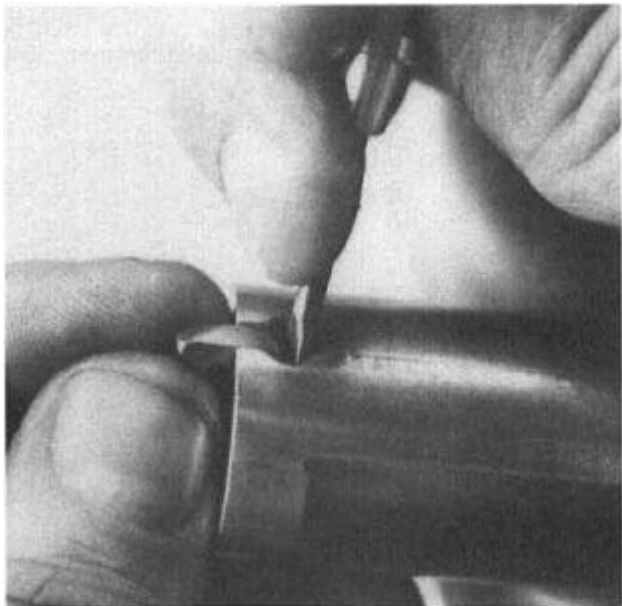
rear.



**18.** Remove the locking block downward.

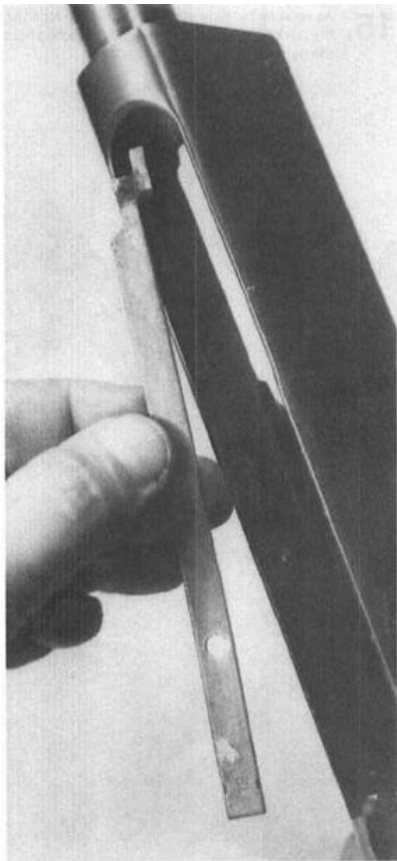
**19.** Insert a small screwdriver between the extractor and its plunger, depress the plunger toward the rear, and remove the extractor from its recess. Caution: Control the plunger, and ease out the plunger and spring for removal toward the front.

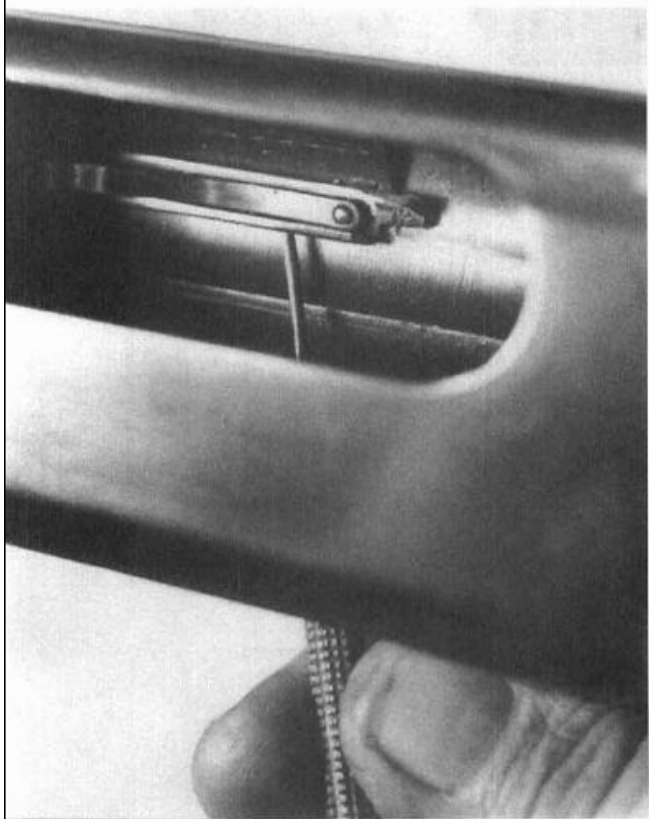




**20.** The right and left shell stops are lightly staked in their shallow recesses at the rear, and can usually be freed by

inserting a tool beneath the rear tail of each one and prying them gently inward. If the stakes are particularly heavy, angle a drift punch into the cross pin holes from inside the receiver, and nudge them slightly toward the rear to clear the stakes. Keep the right and left shell stops separate, as they are not interchangeable.

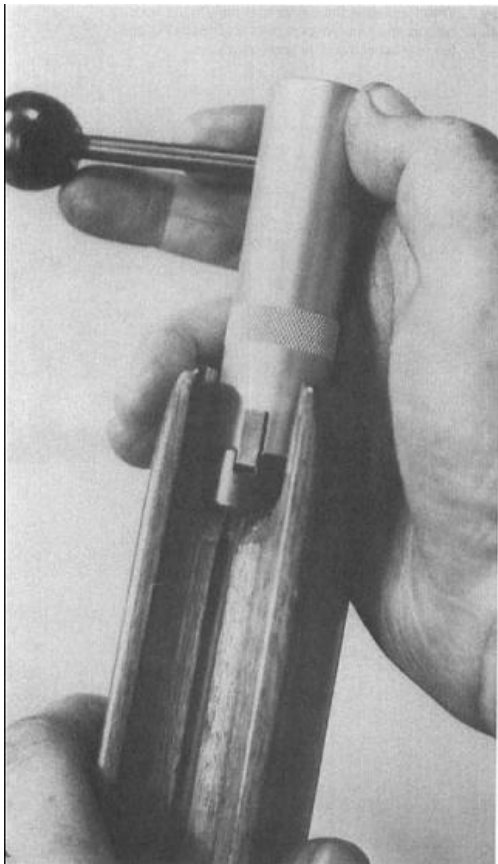




**21.** The ejector and its housing are attached to the inside left wall of the receiver by two riveted pins, through to the outside, and this assembly should not be disturbed unless necessary for repair. If replacement is necessary, this is a job for a competent gunsmith, or the factory.

**22.** Removal of the action slide assembly from the forend is much easier with a B-Square wrench made especially for this purpose. If the wrench is

not available, a section of steel plate cut to the right dimensions can be used. The forend tube nut is unscrewed counter-clockwise (front view), and the tube and action bar assembly is taken out of the forend toward the rear.



**23.** Remove the buttplate, and use a B-Square Model 870 stock tool or a long-shanked screwdriver to back out the stock mounting bolt. Remove the bolt, lock washer, and washer toward the rear. Take off the buttstock toward the rear, and remove the stock bearing plate from the rear of the receiver.

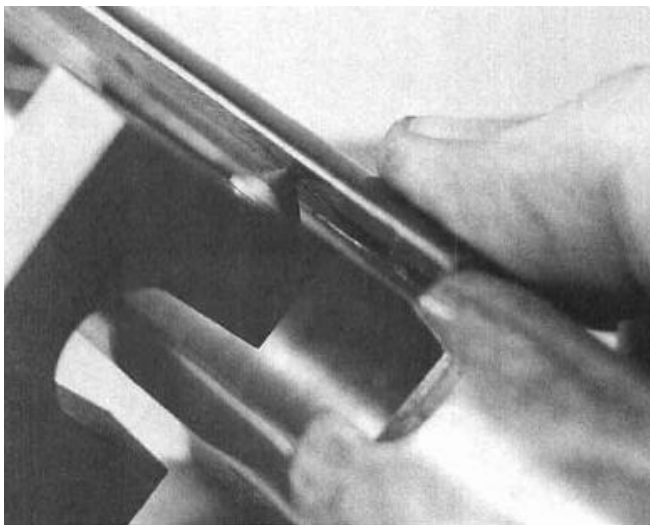




# Reassembly Tips:

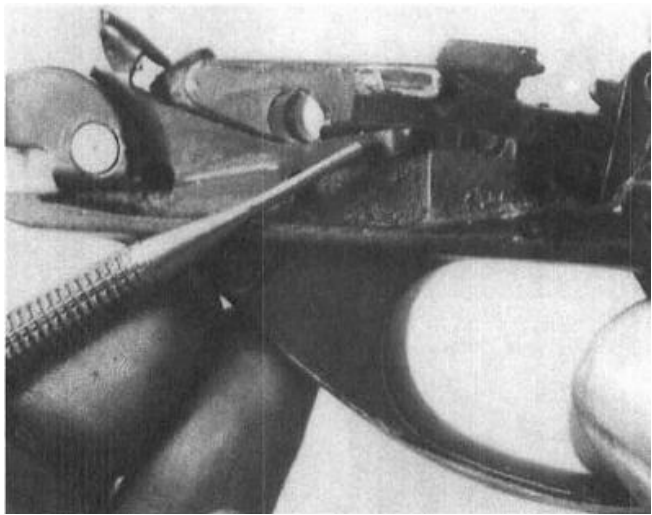
1. When replacing the shell stops, the upper extensions at the front must be inserted first, then the rear of the parts moved into the recesses on each side. Note that the stop with the recessed section goes on the left side. Temporarily inserting the front trigger group cross pin will help to hold the stops in alignment as they are re-staked in place. This can be done with an angled punch, but is much

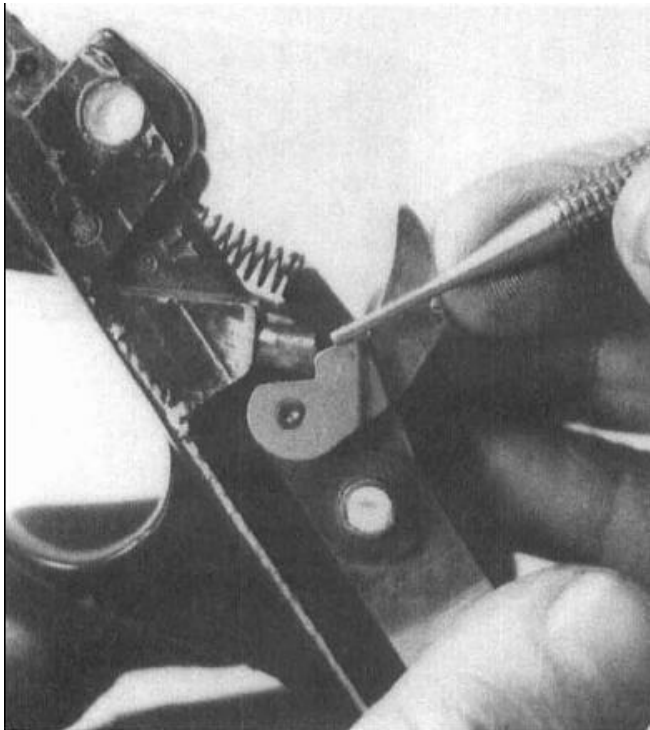
easier if a B-Square Remington staking tool is used, as shown.



2. When replacing the trigger assembly in the housing, be

sure the forward tip of the left connector is above the rear tail of the slide latch, as shown.





**3.** When replacing the carrier

assembly, be sure the step at the rear of the carrier dog engages the top of the carrier spring plunger, as shown.

When replacing the bolt and slide assembly in the receiver, you must depress the shell stops in sequence as the assembly is moved toward the rear. Depress the right, then the left shell stop, in that order.

# Remington Model

11-48





## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Remington Model 11-48 also apply to the following guns:

**Remington Model 11-48A**

**Remington Model 11-48SA**

**Remington 11-48R**

Data: Remington Model  
11-48

Origin: United States  
Remington Arms  
Company,

Manufacturer:

Gauges:

Bridgeport,  
Connecticut  
12, 16, 20, 28, and  
410

Magazine  
capacity:

4 rounds in 12, 16,  
and 20; 3 rounds in  
28 and 410

Overall  
length:

49-1/2 inches  
(with 28-inch  
barrel)

Barrel length:

26 to 30 inches

Weight: 6-1/4  
to 7-1/2  
pounds

the Model 11-48 was first offered in 1949, and was made until 1969. While the basic long-recoil action was derived from the earlier gun, nothing else was even similar. The trigger group, particularly, was pure Remington, and the same mechanism is still used today in many Remington rifles and shotguns. From a takedown/reassembly standpoint, the Model 11-48 is not difficult, but there is one operation where a special

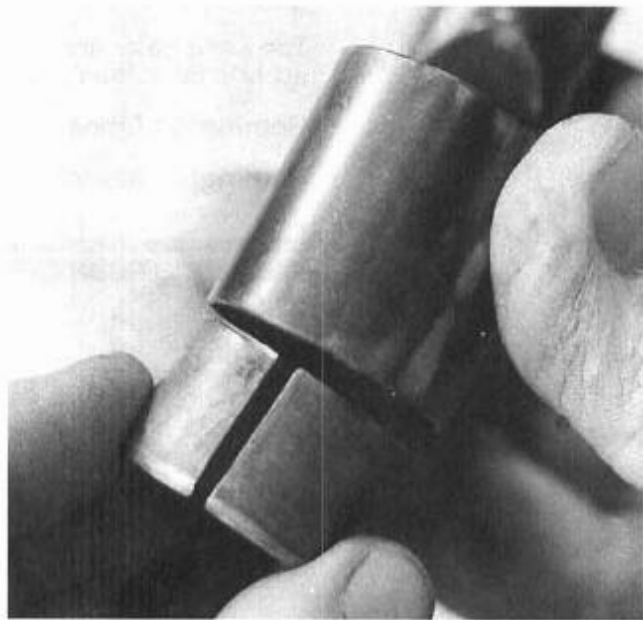
tool is required.

# Disassembly:

1. Pull back the operating handle to lock the bolt open, depress the barrel slightly toward the rear, and unscrew the magazine end cap and remove it. Take off the forend toward the front, and remove the barrel toward the front.



2. The friction piece will often remain in the underloop of the barrel when it is removed, and is easily pulled out toward the rear.





END FOR  
RD MU//  
FOR  
ALL LOAD



3. Turn the collar at the front of the recoil spring counter-clockwise (rear view) while pulling the spring assembly toward the front, and remove the assembly from the magazine tube. The collar is a permanent part of the spring.
4. Insert a screwdriver in the open end of the magazine spring retainer, and pry the retainer out, alternating the position of the screwdriver to raise it equally. Caution; The magazine spring is under

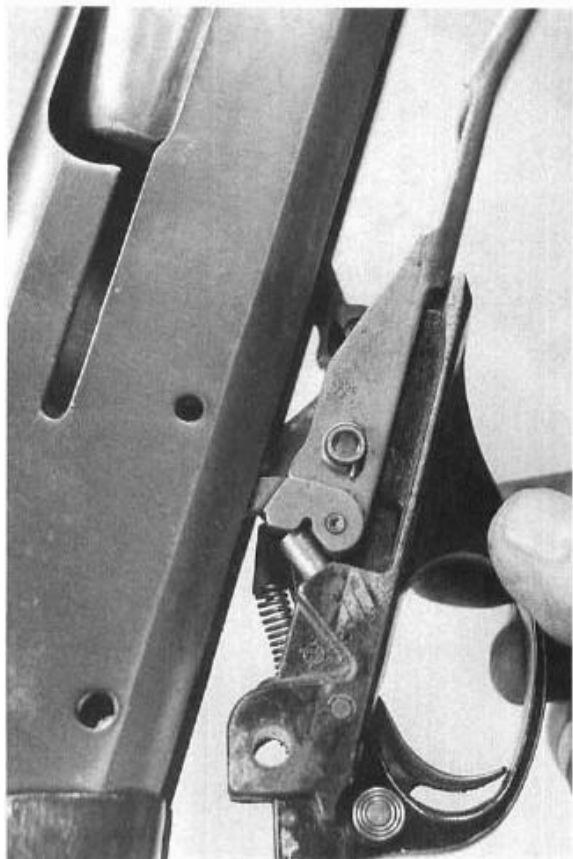
tension, so keep the retainer under control and ease out the spring. Remove the spring, the plug if one is present, and the magazine follower toward the front.



5. Restrain the bolt handle, push the carrier latch button, and ease the bolt forward to the

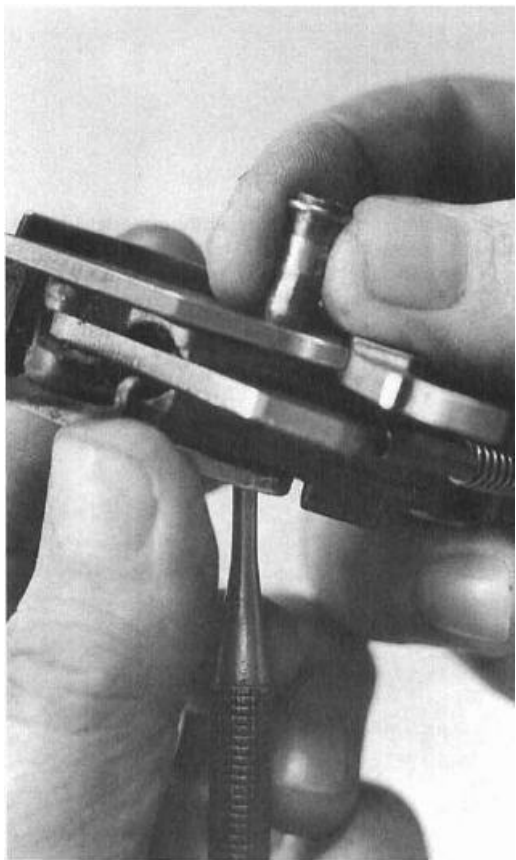
closed position. Set the safety in the on-safe position. Push out the large and small cross pins at the lower rear edge of the receiver.





- 6.** Remove the trigger assembly downward.

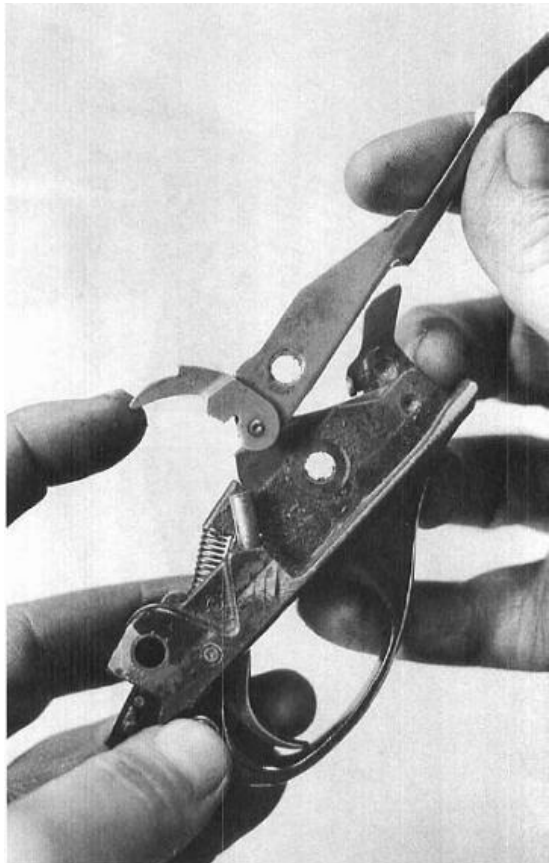


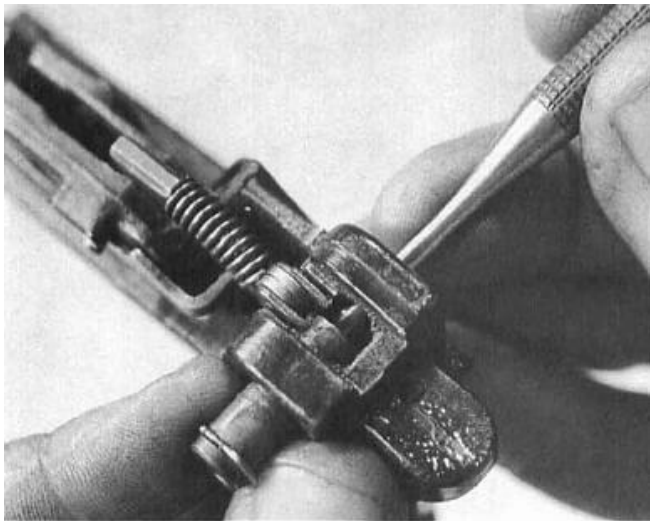


**7.** Restrain the carrier, and push out the carrier pivot, which is also the front cross pin sleeve. In some cases, the sleeve will have a pin latch spring at each end, and one of these must then be removed before the sleeve is pushed out.

**8.** Remove the carrier upward and toward the front, and remove the carrier spring and plunger from its hole on the right side of the housing. The carrier dog and its washer-plate are retained on the right rear

extension of the carrier by a cross pin, and the pin is riveted in place. In normal disassembly it is not removed. If necessary for repair, the pin is drifted out toward the left, taking care that the wing of the carrier is well supported.





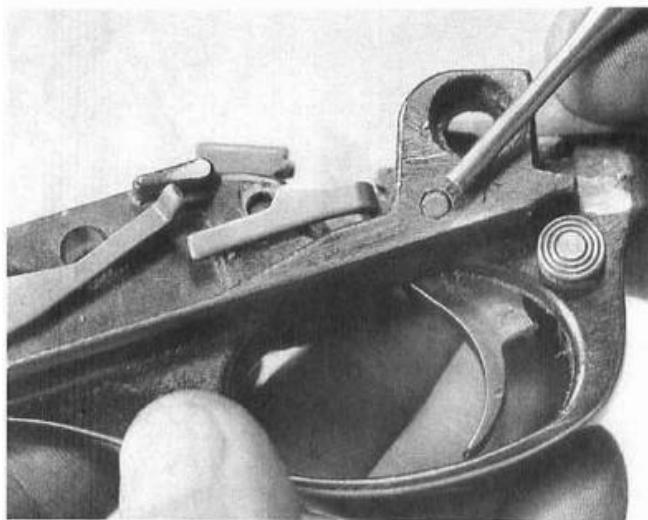
9. Move the safety to the off-safe position, pull the trigger, and ease the hammer down to the fired position. Keeping the trigger pulled to the rear, push out the rear cross pin sleeve

toward the left, and remove it.

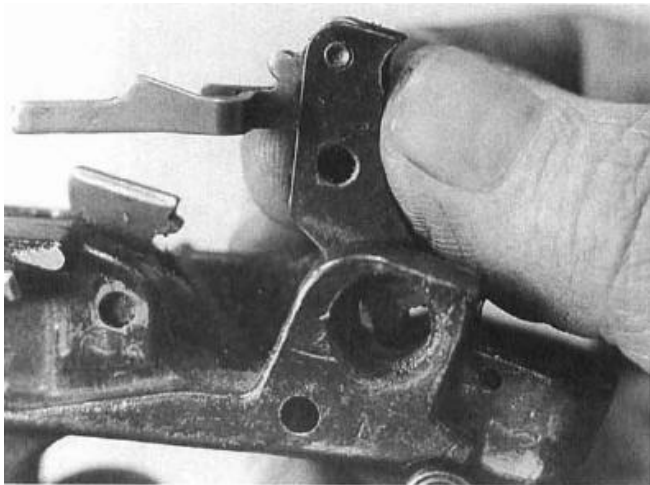
- 10.** Removal of the rear cross pin sleeve will allow the top of the trigger to move to the rear beyond its normal position, and this will allow the combination trigger and sear spring to be easily detached from its studs on the sear and trigger and removed upward.



**11.** Push out the trigger pin.

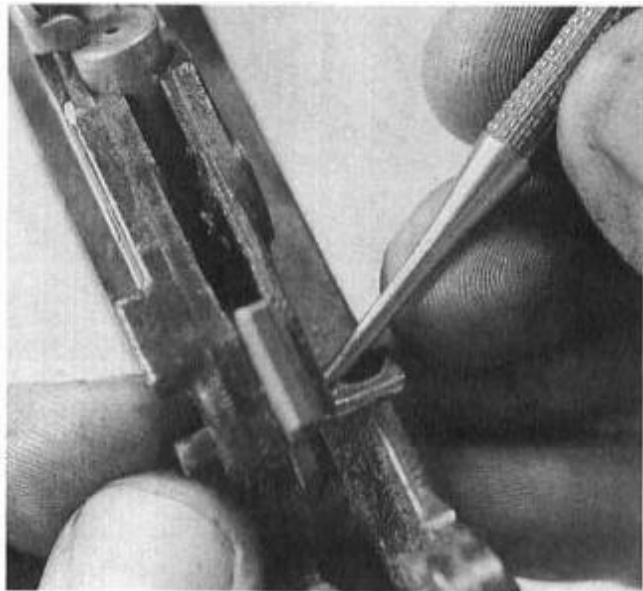






- 12.** Remove the trigger assembly upward. It will be necessary to turn the trigger slightly to clear its left connector bar past the shelf on the housing. The connector arms are cross

pinned at the top of the trigger, and the pin is riveted. Removal is not advisable in normal disassembly. If necessary for repair, the pin is drifted out toward the right. Be sure the top of the trigger is well supported if this is done.



**13.** The sear cross pin is accessible on the right side of the housing by angling a drift in the top of the carrier spring

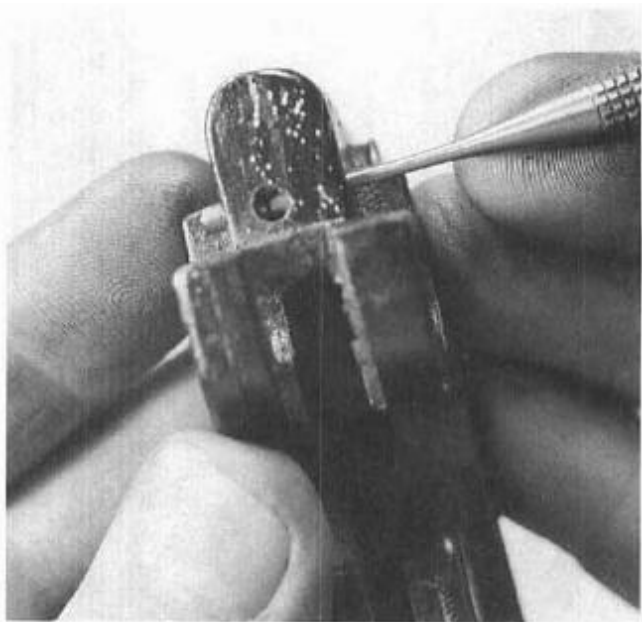
hole. The pin is pushed toward the left, and the sear is removed upward.

- 14.** Restrain the hammer spring plunger, and drift out the hammer cross pin, taking care that the disconnecter is well supported on the opposite side. The pin is riveted on the right side, and will require some effort to start it. When the pin is drifted out (toward the left), the hammer and disconnecter will be freed for removal, and the hammer spring and its plunger can be

slowly released and taken out upward and toward the front. Caution: Restrain the plunger and spring during removal of the pin.



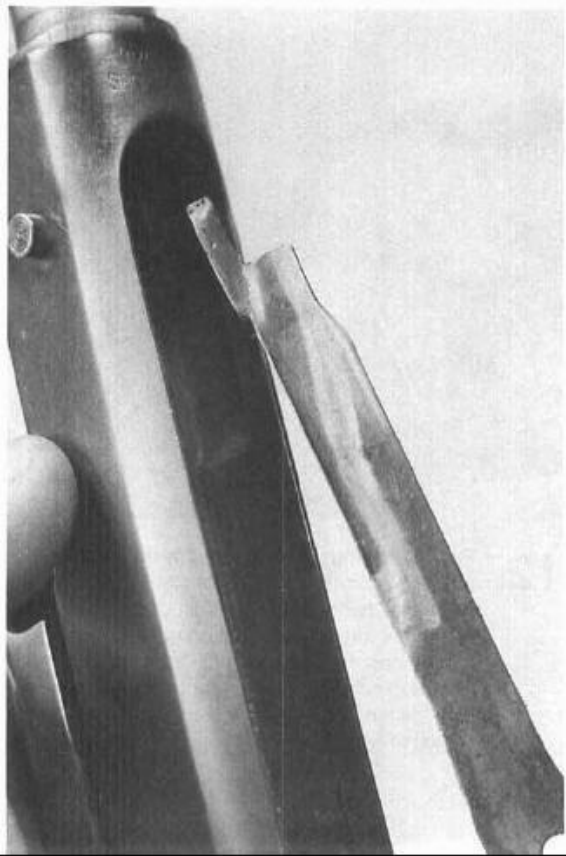
**15.** Push out the small cross pin at the upper rear of the receiver, and take out the safety spring and ball upward, then remove the safety button toward either side. If the ball can't be shaken out when the spring is removed, wait until the button is taken out, then use a drift to push the ball downward into the button tunnel for removal. Take care that this small steel ball isn't lost.



**16.** The shell stop is likely to come out as the trigger housing is removed, as it lies in a



shallow recess inside the left wall of the receiver. If it is still in place, move it toward the rear and inward for removal.

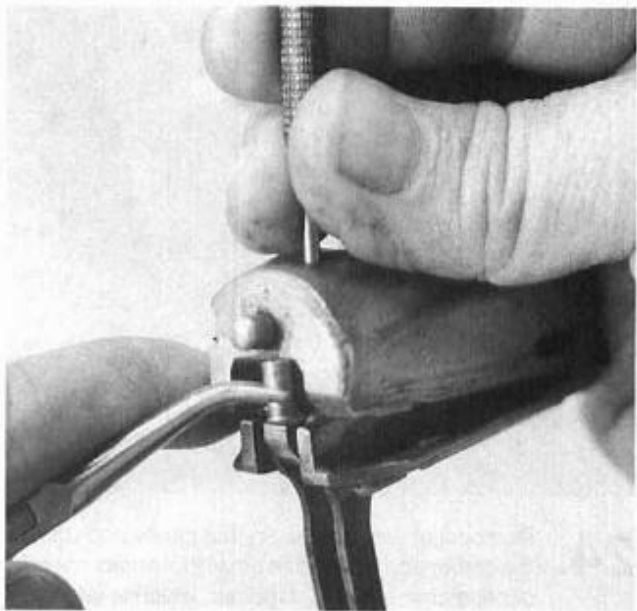




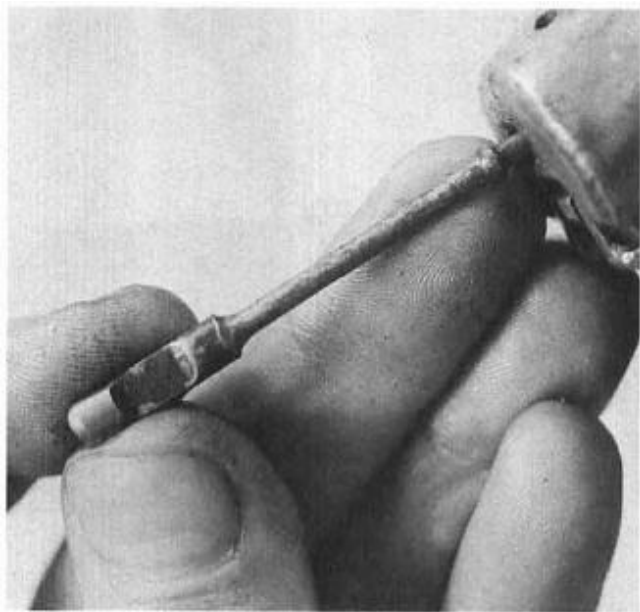
**17.** Grip the operating handle firmly, and pull it straight out toward the right for removal.

**18.** Slide the bolt assembly out the front of the receiver.





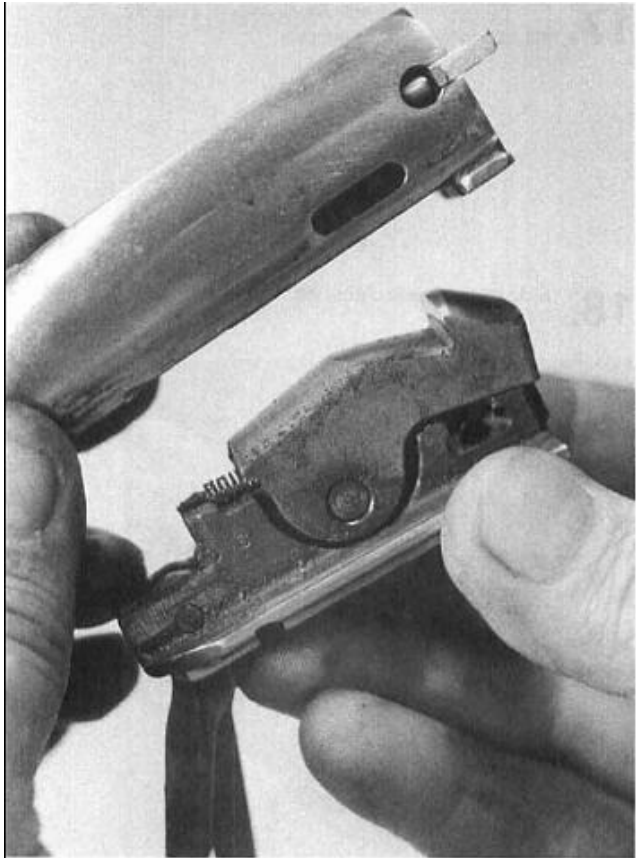
**19.** Tip the locking slide down at the rear for clearance, and drift out the firing pin retaining pin downward.



**20.** Remove the firing pin toward the rear. The firing pin return spring may come out with the

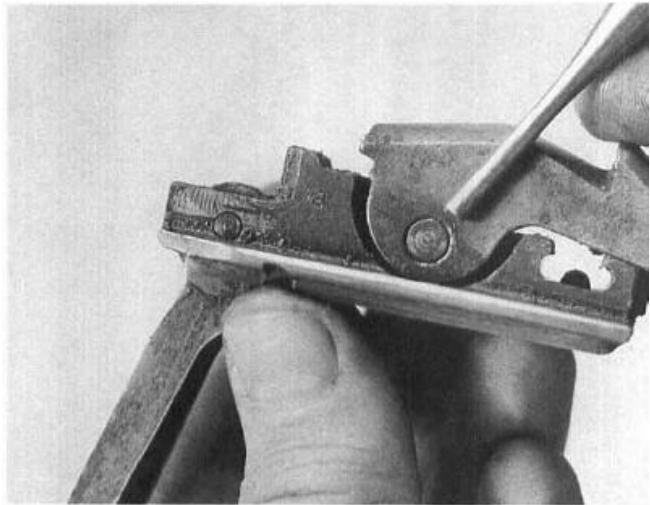
pin, but in many cases will remain in the bolt.

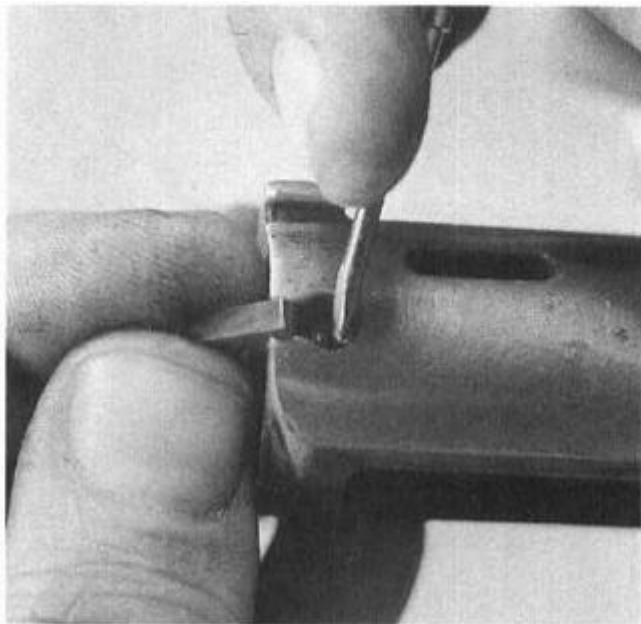




- 21.** If the return spring remains in the bolt, insert a tool at the top of the bolt to nudge the spring out of its recess in the front of the bolt. Remove the locking slide and its attached locking block downward.
- 22.** Push out the large cross pin in the lower lobes of the locking block, and separate it from the slide. Drifting out the small cross pin at the rear of the slide will release the twin link struts for removal. The operating handle detent ball

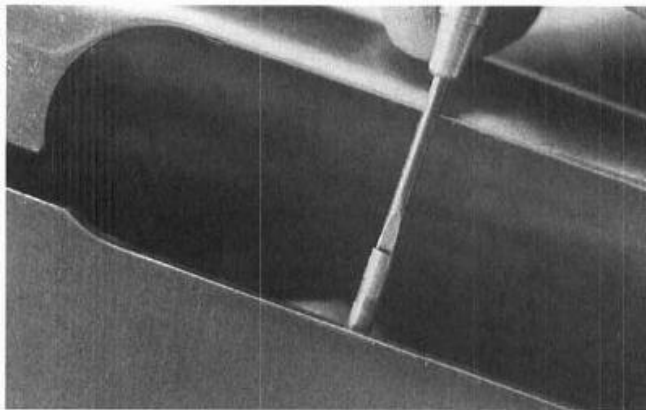
and spring at the front of the slide are not removed in normal disassembly.





**23.** Insert a small screwdriver between the rear of the extractor and its plunger, and

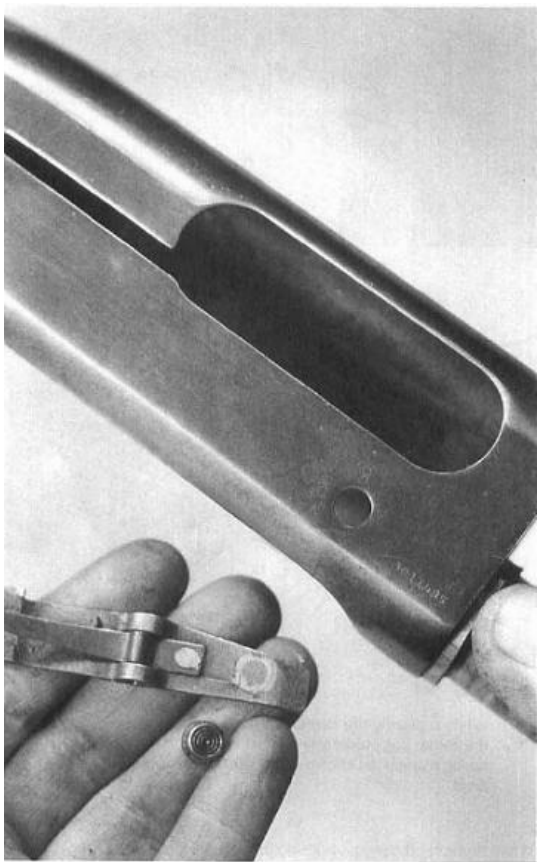
depress the plunger toward the rear while lifting the extractor out of its recess in the bolt. Caution: Keep the plunger under control, and ease out the plunger and spring for removal.



**24.** Removal of the vertical pin that pivots and retains the carrier latch requires a small tool of very specific dimensions. The top of the pin, which is in a blind hole in the lower edge of the ejection port, has a hollow recess. For withdrawal of the pin upward, the tool must be lightly wedged into the recess. If a tool is made in the shop, the tip should be .069-inch square, or between 1/16-inch and 5/64-inch in cross-section. I found that the #4 screwdriver (starting from the

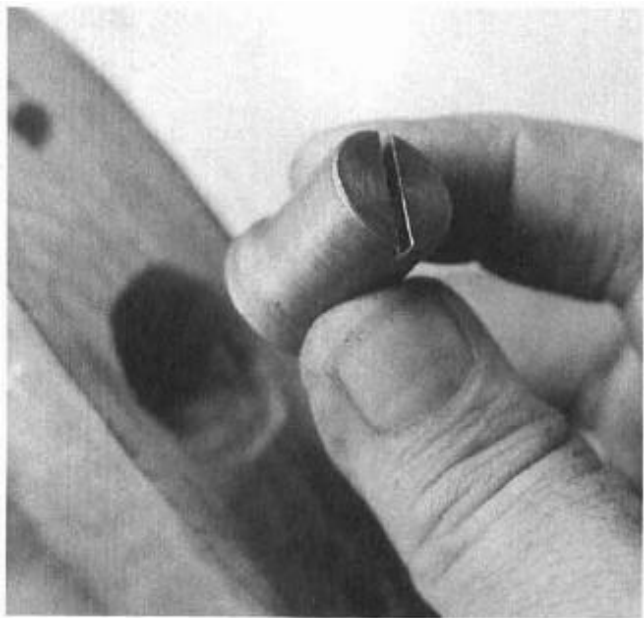
largest) in the German set from Brownells was exactly the right size.

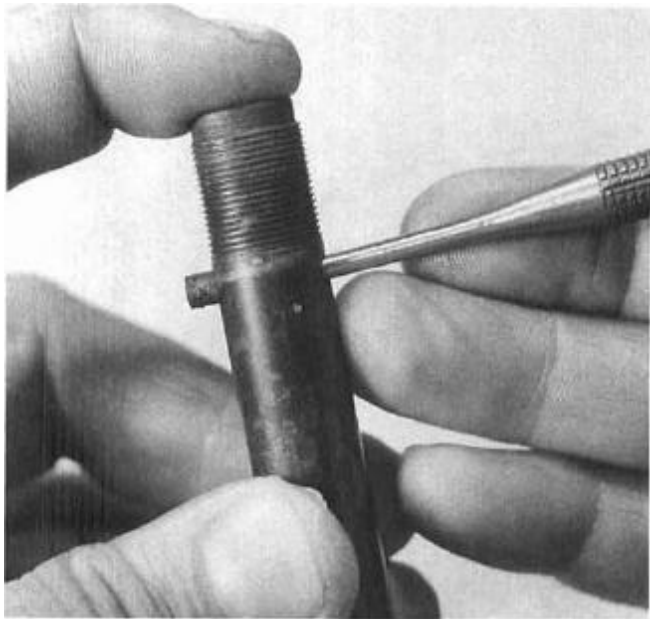
- 25.** After the pin is removed, the carrier latch and the latch button are taken out inward. The latch spring is riveted in place on the latch, and should not be removed except for repair.





**26.** Remove the buttplate, and use a B-Square Model 870 stock tool to back out the stock retaining nut. Remove the nut, lock washer, washer, and buttstock toward the rear.



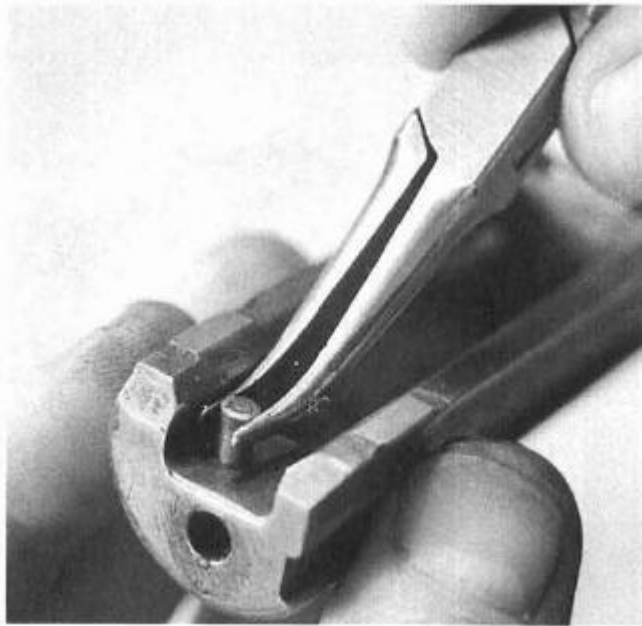


**27.** Restrain the bolt spring plug at the rear of its housing, push out the cross pin, and remove

the plug, spring, and follower toward the rear. Caution: This spring is powerful, and under some tension. Control it, and ease it out.

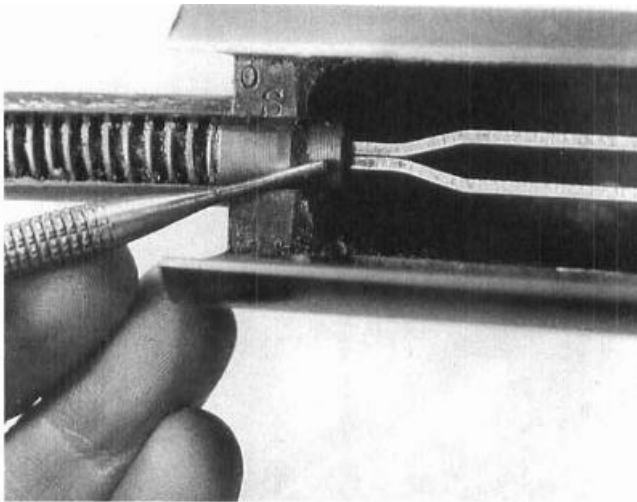
# Reassembly Tips:

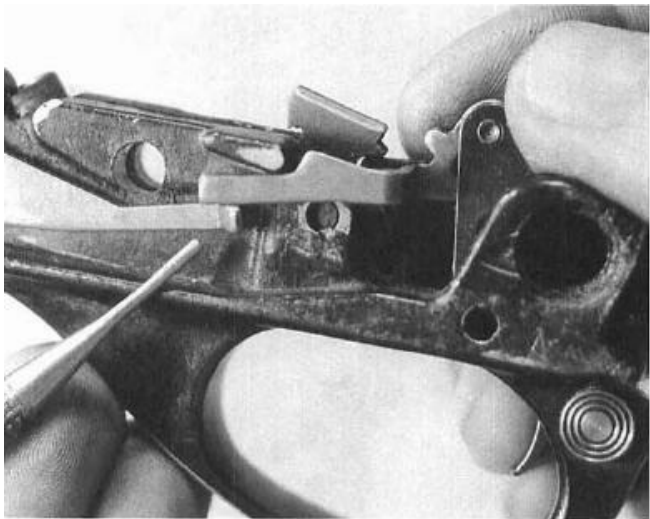
1. When replacing the slide and locking block in the bolt, insert the firing pin return spring into the space between the slide and block, and start the retaining pin into its hole in the underside of the bolt before moving the slide into position. When inserting the firing pin, be sure it enters the spring, and that the front of the spring is in its recess in the front of the bolt.



2. When replacing the bolt in the receiver, be sure the rear tips of the link struts engage the

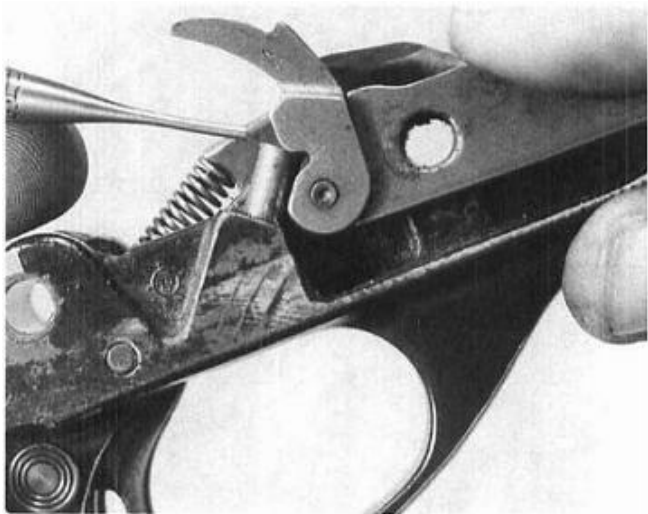
cup at the front of the bolt  
spring follower, as shown.





3. When replacing the trigger, be sure the left connector arm is installed with its front tip above the rear tail of the disconnecter, as shown.





4. When replacing the carrier, be sure the rear lobe of the carrier dog properly engages the top of the carrier spring plunger, as shown, before installing the carrier pivot.

When replacing the trigger housing in the receiver, insert a fingertip to hold the shell stop in place until the housing is in far enough to hold it. Before installing the front cross pin, be sure the hole in the shell stop is properly aligned with the hole in the receiver. Insert a tapered drift to center the hole.

# Remington Model

11-87



**Data:** Remington Model  
11-87

**Origin:** United States

**Manufacturer:** Remington Arms  
Company, Llion,  
New York

**Gauges:** 12

**Magazine  
capacity:** 4 rounds

**Overall  
length:** 46 inches  
(with 26-inch  
barrel)

**Barrel  
length:** 26, 28 & 30 inches

**Weight:** 8-1/4 pounds

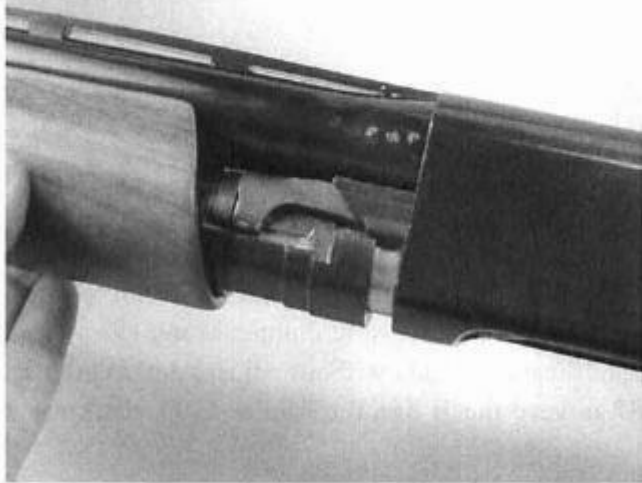
In 1987, Remington slightly redesigned the Model 1100, and the result was the Model 11-87. One of the main changes was a pressure-compensating gas system that would handle the lightest and heaviest loads without adjustment. While the mechanism of the Model 11-87 is very much like the Model 1100, there are a few important differences.

# Disassembly:

1. Lock the action open, and set the safety in on-safe position. Unscrew and remove the magazine end cap.

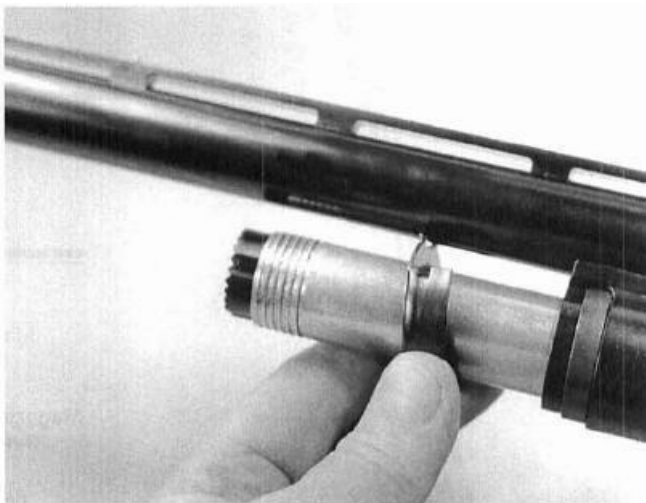






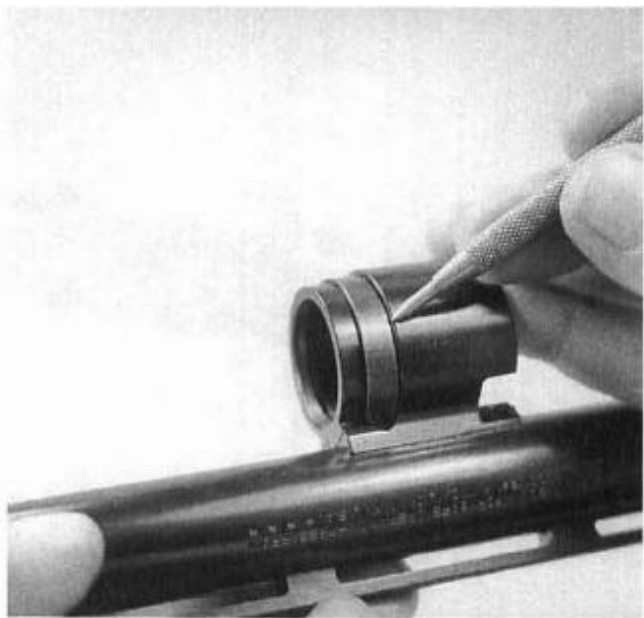
**2.** Remove the forend toward the front.

### 3. Remove the gas cylinder collar.

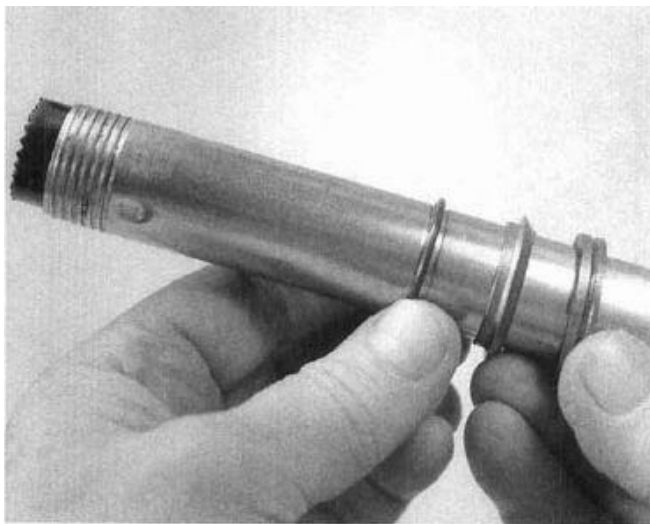


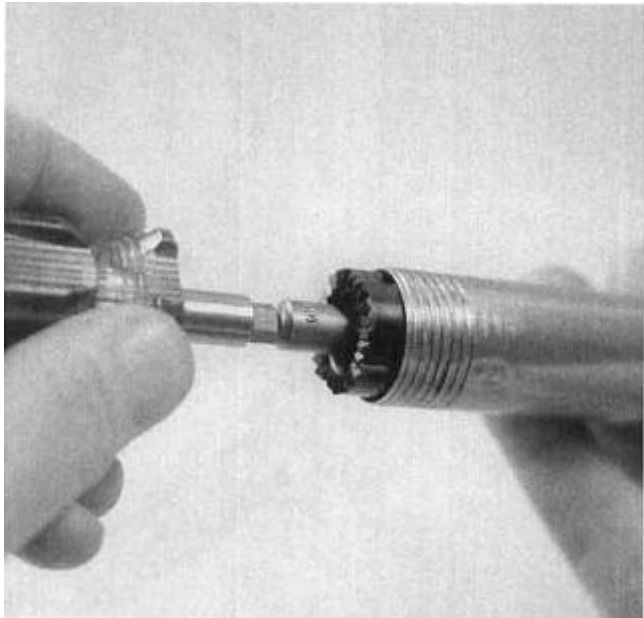


4. Remove the barrel toward the front.
5. The gas cylinder spring is not removed in normal takedown.



6. Remove the rubber gas seal ring, and the piston and piston seal ring toward the front.





7. To remove the magazine spring and follower, use a screwdriver in the slot in the end piece to depress the end

piece about an inch, turn it 90 degrees in either direction, and ease it out. Control the compressed spring,

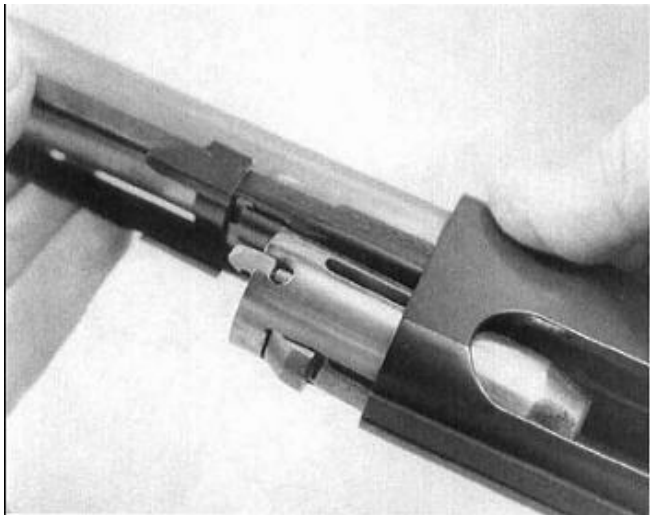


**8.** Restrain the bolt, push the

carrier latch, and ease the bolt to the forward position. Grip the bolt handle firmly, and pull it out toward the right.

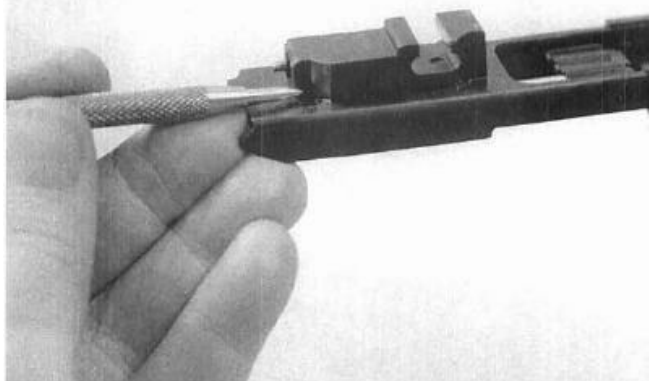
9. Depress the latch and push the carrier inward. Depress the feed latch, on the right side inside the receiver. Move the bolt and action bar assembly out toward the front. The bolt is easily detached from the action bar.





**10.** The sleeve at the front is not normally removed from the action bar assembly. The forend support can be sprung off the action bar, if necessary for repair. The slide block

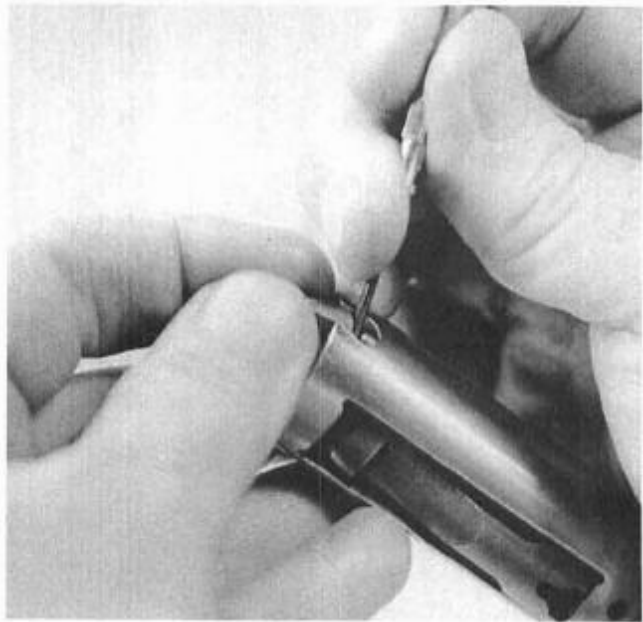
buffer is retained at the rear of the action bar by a cross pin that is drifted out toward the left. Removal of the pin will release the three parts of the buffer, a strong coil spring (control it), and the ball that retains the cocking handle.





**11.** The firing pin and its return spring are retained at the rear of the bolt by a vertical pin

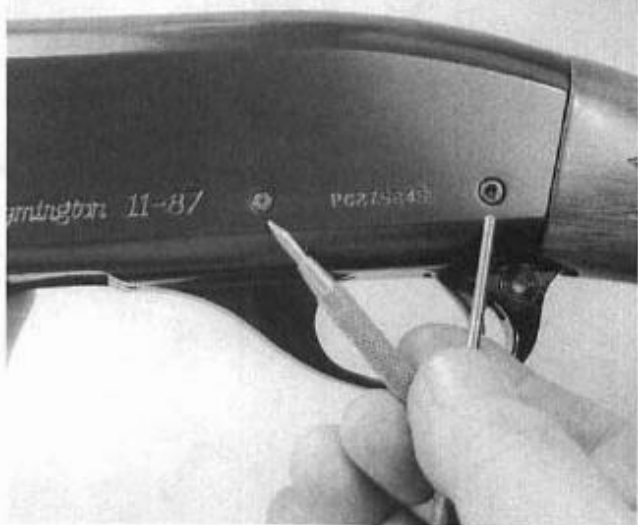
that is drifted out downward.  
Removal of the firing pin and  
its spring will allow the  
locking block to be taken out  
downward.



**12.** To remove the extractor, insert a small tool between the extractor and its plunger, and

depress the plunger toward the rear. Tip the extractor out toward the front. Caution: Control the plunger and spring.

- 13.** Push out the two trigger group retaining cross pins.

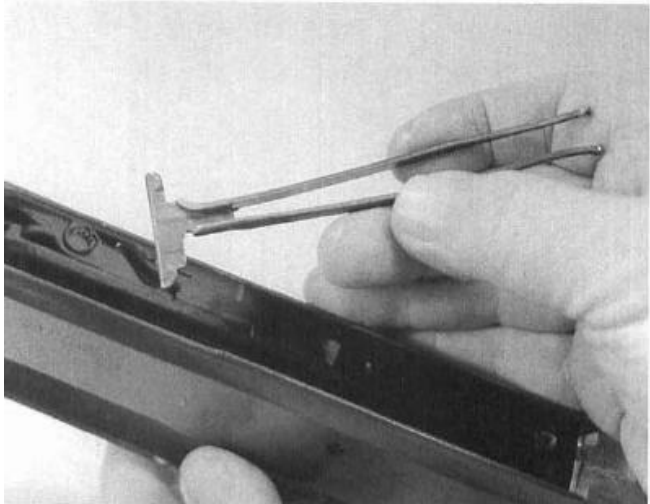


- 14.** Remove the trigger group downward, turning it slightly to clear the disconnecter arm.









- 15.** Move the bolt spring link forward until its rear tips spring out of the spring plunger. Swing the ends out and turn the link for removal.

**16.** The secondary shell stop ("feed latch"), located inside the receiver on the right side, is factory-staked in place. It should be removed only for repair.



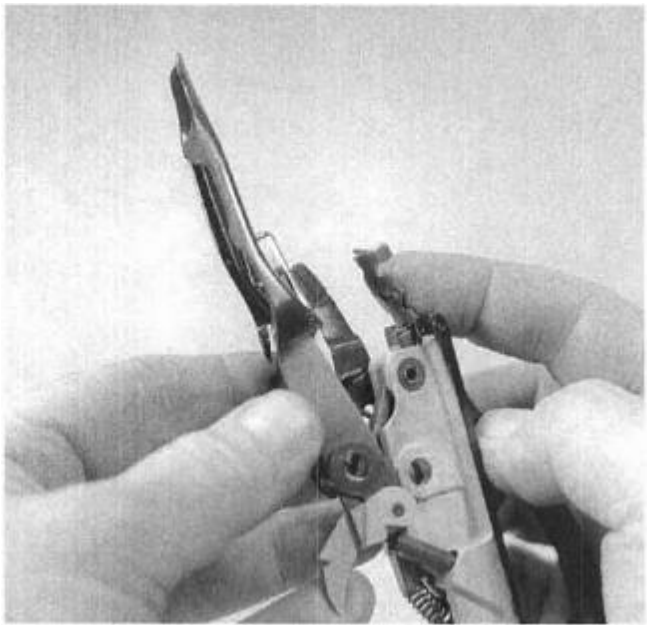
**17.** Inside the left receiver wall, the primary shell stop ("interceptor latch") is mounted on a fixed post, and retained by a two-hole spring clip. If necessary for repair, the clip can be pried off. The torsion spring for the stop, located just to the rear, is factory-staked in place. Again, removal should be only for repair.





**18.** Remove the spring ring from the right tip of the front cross pin sleeve, which is also the

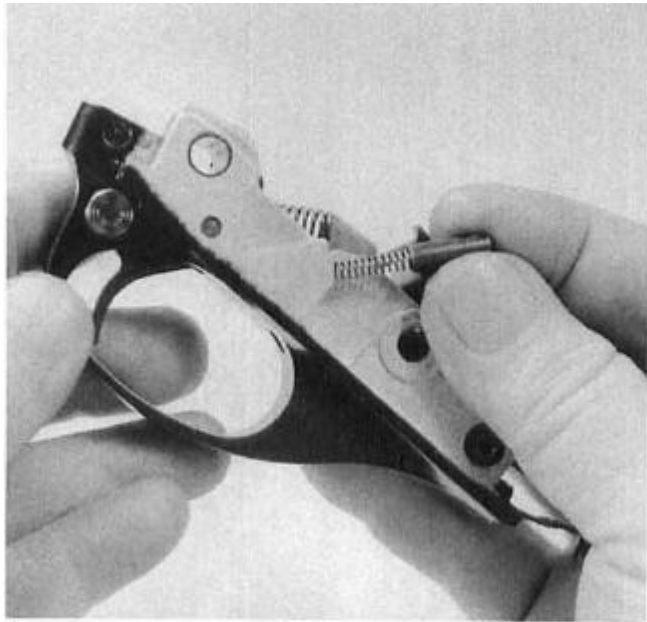
carrier pivot. Control the carrier spring tension, and push the sleeve out toward the left.





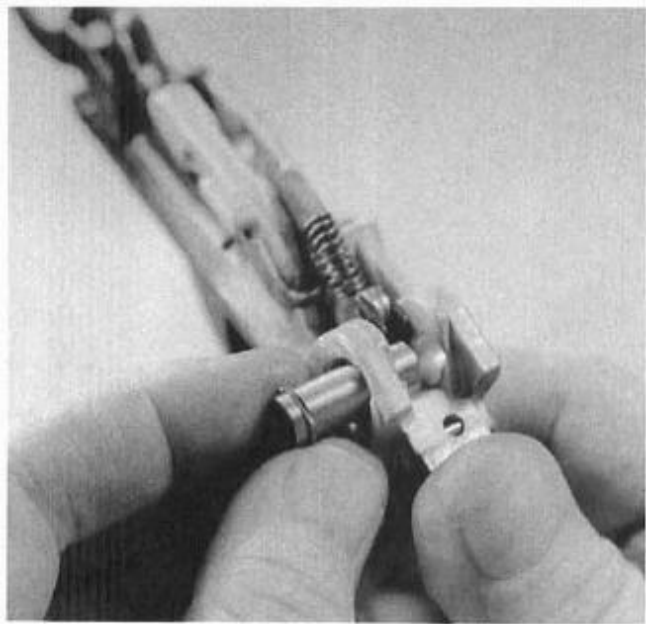
**19.** Trip the carrier release, and ease the carrier latch over toward the front. Remove the carrier upward. The carrier dog and its spacer plate have a riveted pivot, and are not removed. The carrier release and its spring also have a riveted cross pin.

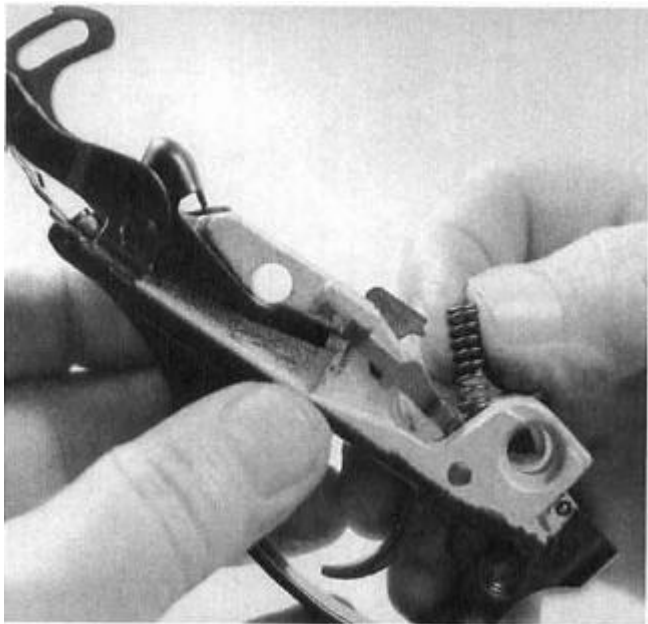
**20.** Remove the carrier plunger and spring.



**21.** Move the safety to off-safe position, restrain the hammer, pull the trigger, and ease the

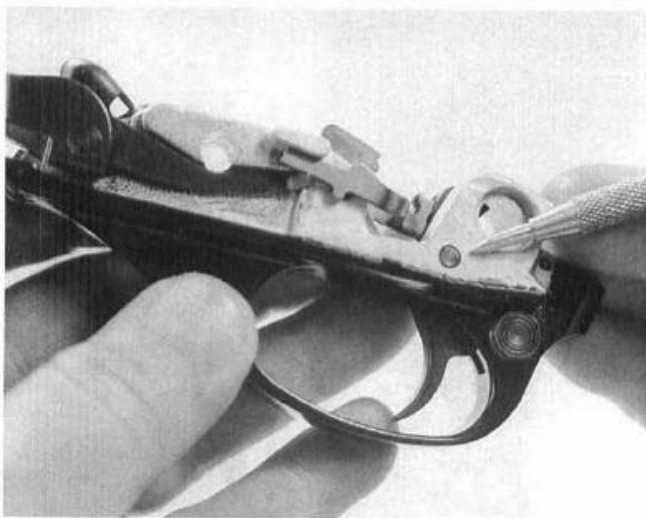
hammer to the forward position. Pull the trigger slightly, and push out and remove the rear cross pin sleeve toward the left.





**22.** The top of the trigger will now move further rearward, easing the tension of the combination

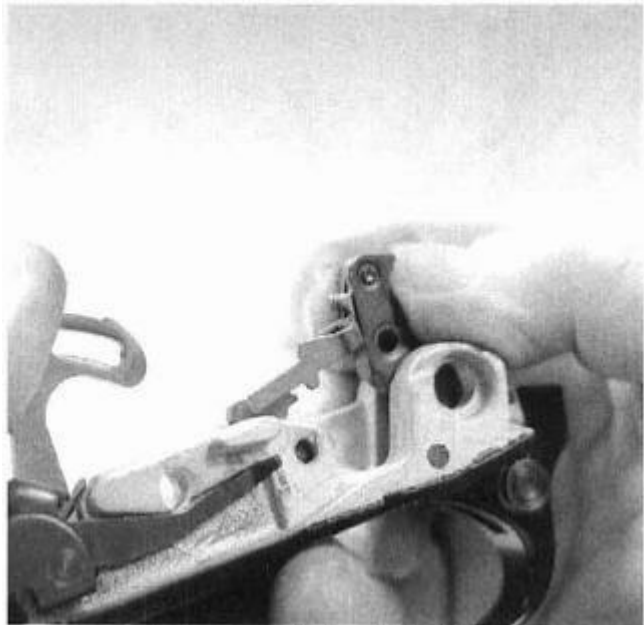
sear and trigger spring. Unhook the spring from its stud on the back of the sear, and remove it.



**23.** Drift out the trigger cross pin

toward the left. The direction is important, as the pin is splined at its left tip.

- 24.** Push the hammer back slightly to unspring the disconnecter, and remove the trigger assembly upward. The trigger connector arms have a riveted pivot, and they are not removed.

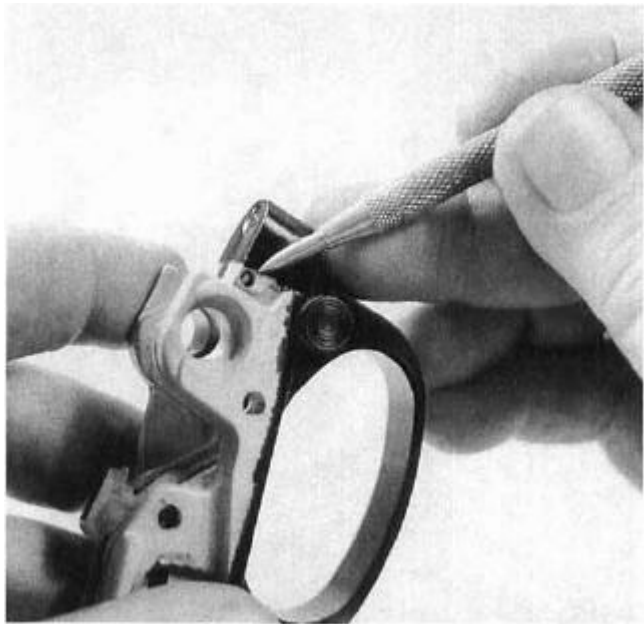


**25.** There is an access hole on the right side at the mouth of the recess for the carrier plunger



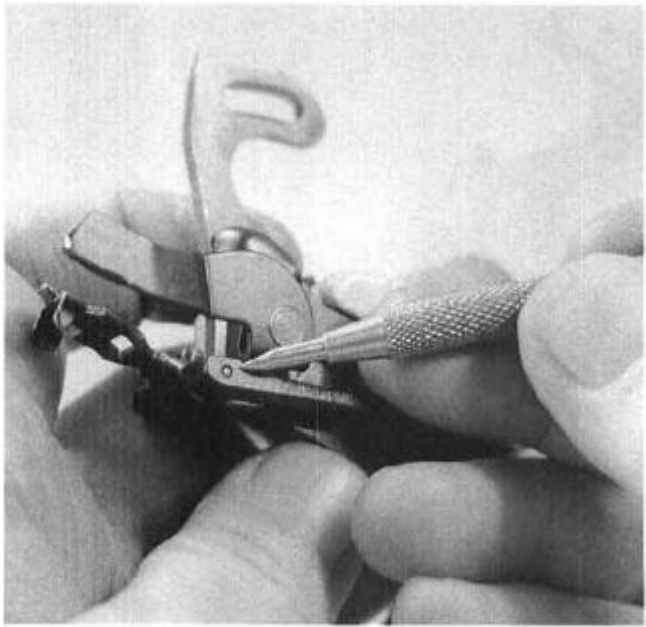
and spring, exposing the right tip of the sear cross pin for drifting out leftward. However, the pin is staked on the left side, so removal should be only for repair purposes. After the pin is out, the sear is taken out upward.





**26.** Drifted out toward the right, this cross pin will free the safety spring and plunger.

Cover the hole on top at the rear to arrest the spring when the pin is removed. With the spring and plunger out, the safety button can be taken out toward either side.

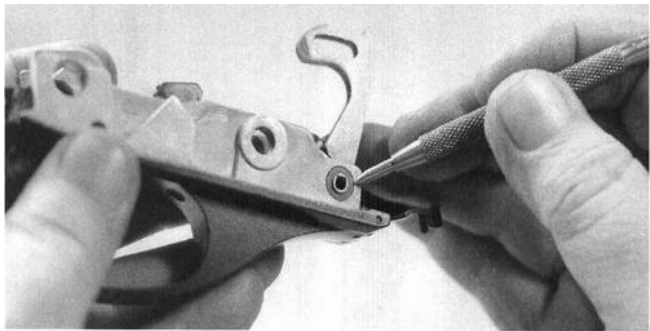


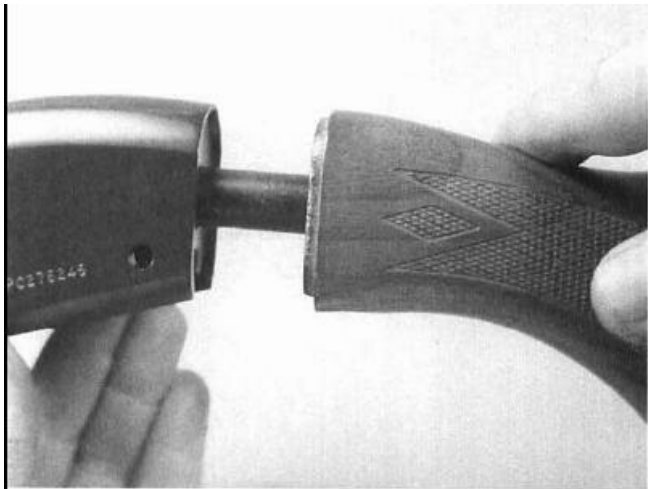
**27.** The carrier latch is pivoted and retained by a slim cross pin at the front of the trigger

group. The plunger and spring behind the latch must be controlled as the pin is pushed out. This is a powerful spring, so be careful.

- 28.** The hammer and disconnect are pivoted and retained by a cross pin that is heavily riveted over a steel washer on the right side. If the pin is driven out, the hammer spring and plunger will be released, and must be controlled. Actually, with the possibility of damage to the disconnect, this portion of disassembly

should be handled by the  
factory or a repair station.

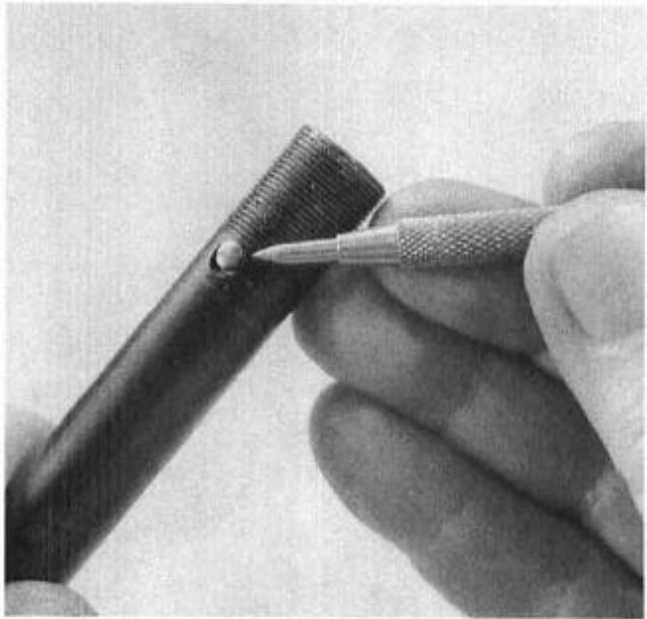




**29.** The recoil pad is retained by two Phillips screws, and a very large regular screwdriver is used to remove the stock nut. Remove the nut and lock washer, and take off the



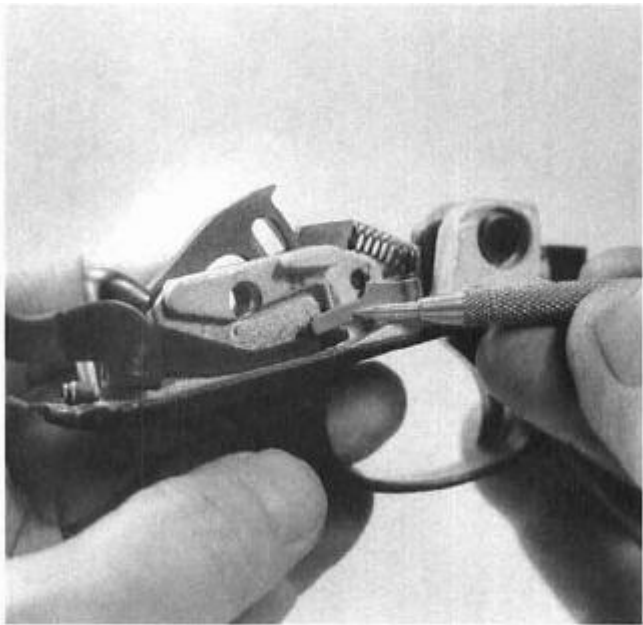
buttstock toward the rear.  
Remove the stock bearing  
plate.



**30.** Use a tool to slightly depress the internal plug from the rear, and push out the plug retaining cross pin. Caution: Control the bolt spring, and ease it out, along with the plunger, toward the rear.

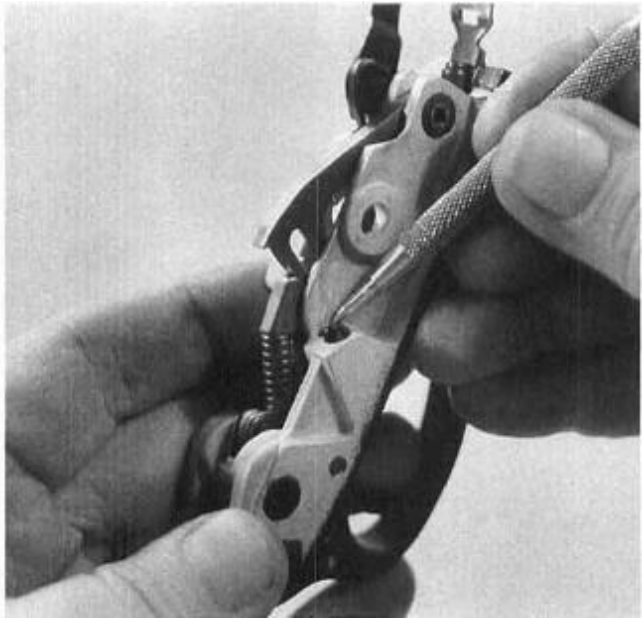
# Reassembly Tips:

1. When replacing the trigger, remember that its splined cross pin must be driven in toward the right. Also, be sure the left connector arm of the trigger is installed above the tail of the disconnecter, as shown.



- 2.** If there is difficulty in installing the carrier plunger and spring, it may be that the sear pin is

protruding into the recess. Just push it gently back toward the left.





- 3.** As the carrier is installed, the latch must be turned up to vertical position and held

there until the carrier pivot is in place.

As the bolt and action bar assembly are reinstalled, it will be necessary to again depress the shell stop as the bolt enters the receiver.

# Remington Model

**1100**





## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Remington Model 1100 also apply to the following guns:

**Remington Model 1100D**

**Remington Model 1100SA**

**Remington Model 1100SF**

**Remington Model 1100 LT-20**

**Remington Model 1100F**

**Remington Model 1100SB**

**Remington Model 1100TB**

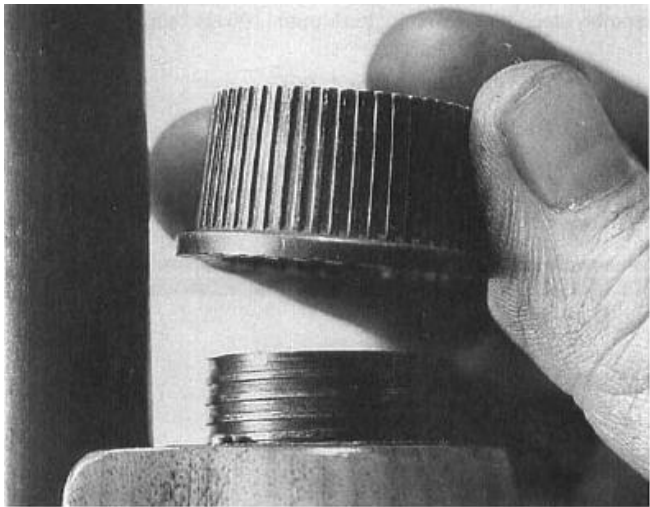
**Remington Sportsman Auto**

<b>Data:</b>	Remington Model 1100
<b>Origin:</b>	United States
<b>Manufacturer:</b>	Remington Arms Company Bridgeport, Connecticut
<b>Gauges:</b>	12, 16, 20, 28, and 410
<b>Magazine capacity:</b>	4 rounds
<b>Overall length:</b>	48 inches (with 28-inch barrel)
<b>Barrel length:</b>	22 to 30 inches
<b>Weight:</b>	6-1/2 to 7-3/4 pounds

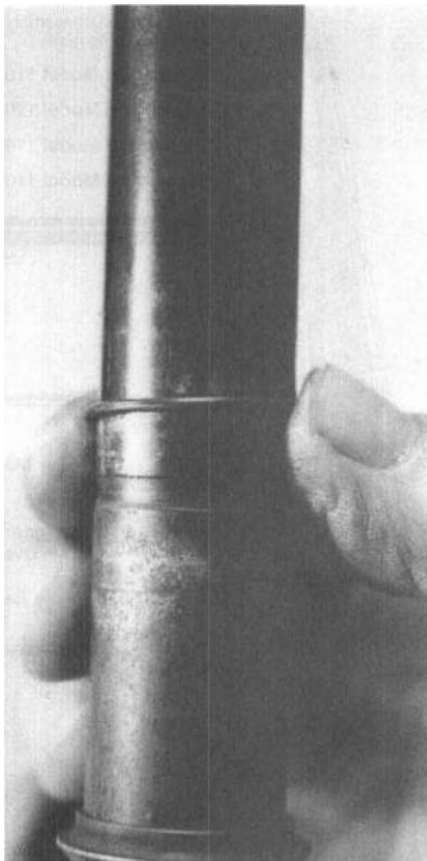
Replacing the Model 58 and Model 878 in 1963, the Model 1100 rapidly became one of the most popular gas-operated autoloaders. Originally offered in the larger gauges only, it became available in 28 and 410 chamberings in 1970. A wide variety of options in barrel lengths, chokes, and ribs are offered. All of the variations are mechanically the same, and the instructions will apply.

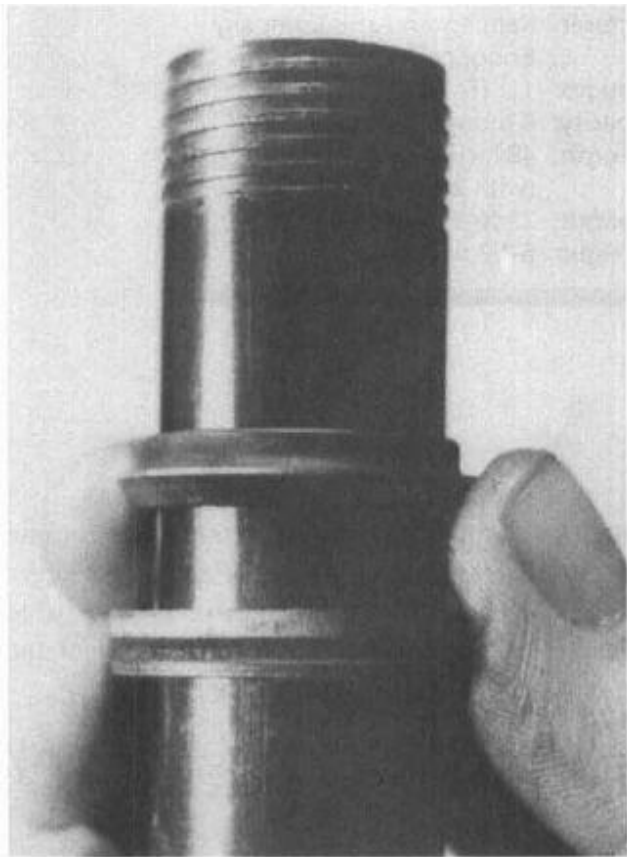
# Disassembly:

1. Pull back the operating handle to lock the bolt in the open position, and unscrew and remove the magazine cap. Take off the forend and barrel, in that order, to-ward the front.



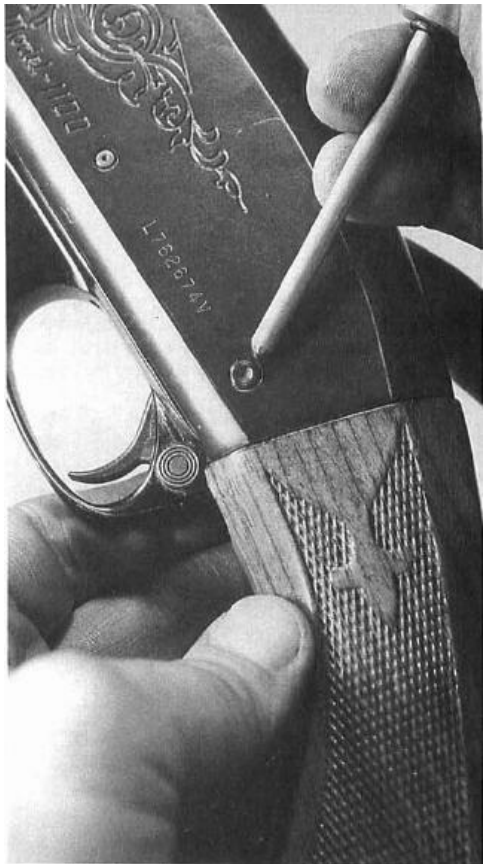
2. Move the rubber gas seal ring out of its shallow recess on the magazine tube, and slide it off toward the front.



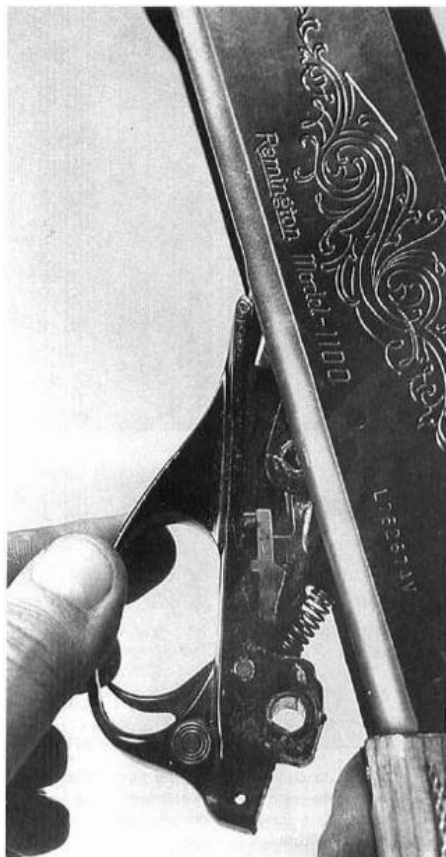




3. Remove the gas piston and the piston seal ring toward the front.



4. Restrain the bolt, depress the carrier latch, and ease the bolt forward to the closed position. Push out the large and small cross pins at the lower rear of the receiver toward either side.
  
5. Remove the trigger group downward, turning it slightly as it is moved out to clear the disconnecter on the left side.



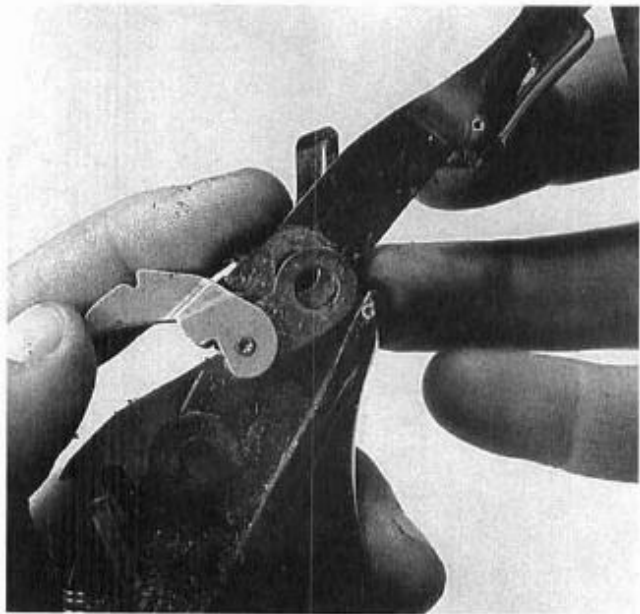


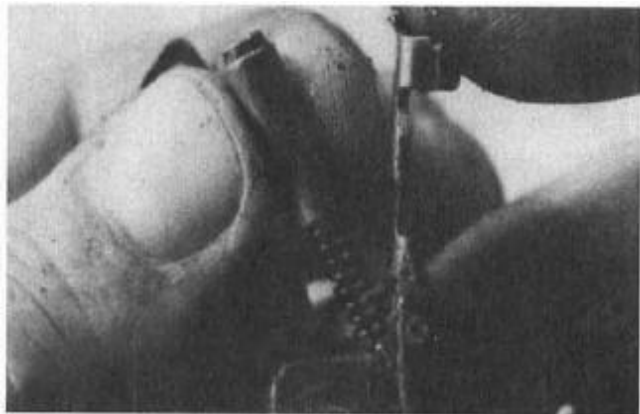
- 6.** If both retaining clips are present on the front cross pin sleeve, remove one of them.



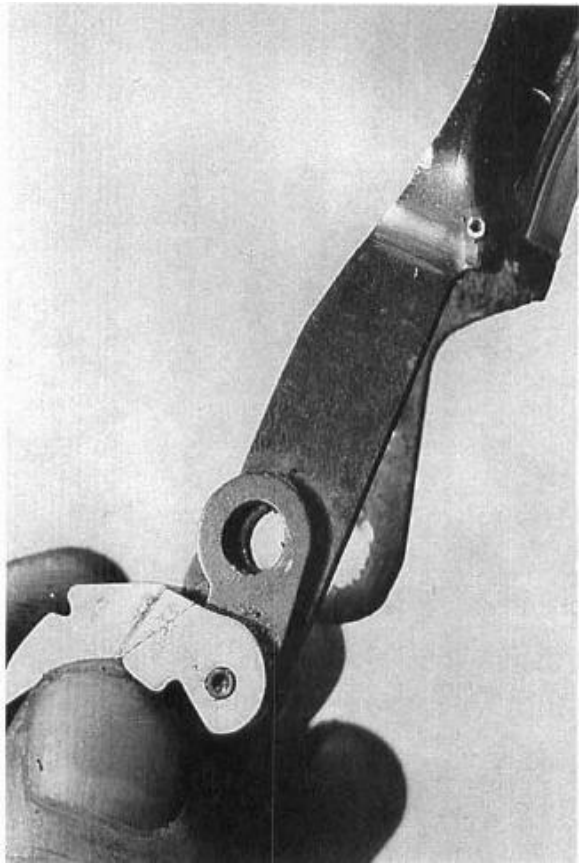
7. Restrain the carrier, and push out the pivot/sleeve and remove it.
8. Ease off the carrier spring tension, removing the carrier upward and toward the front. Caution: As the carrier is removed, restrain the carrier latch, as its powerful spring will force it over toward the front.





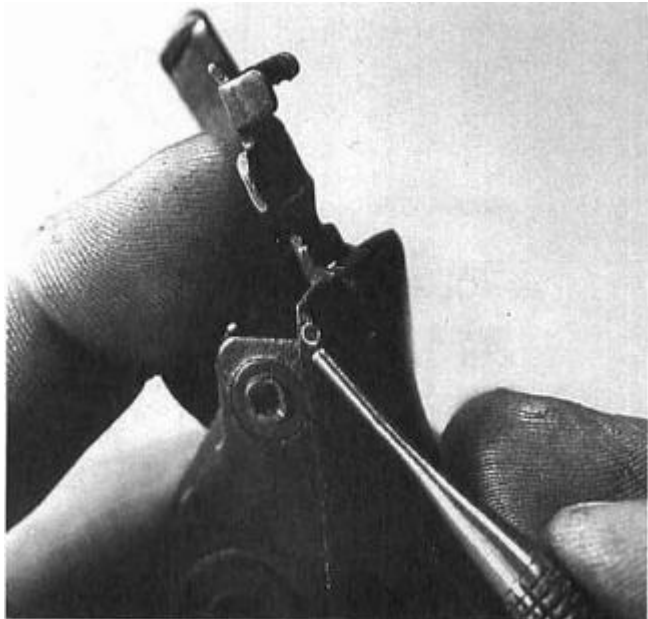


9. Slowly release the tension of the carrier latch spring, allowing the latch to pivot over forward while restraining the spring plunger. Remove the plunger and spring toward the front.



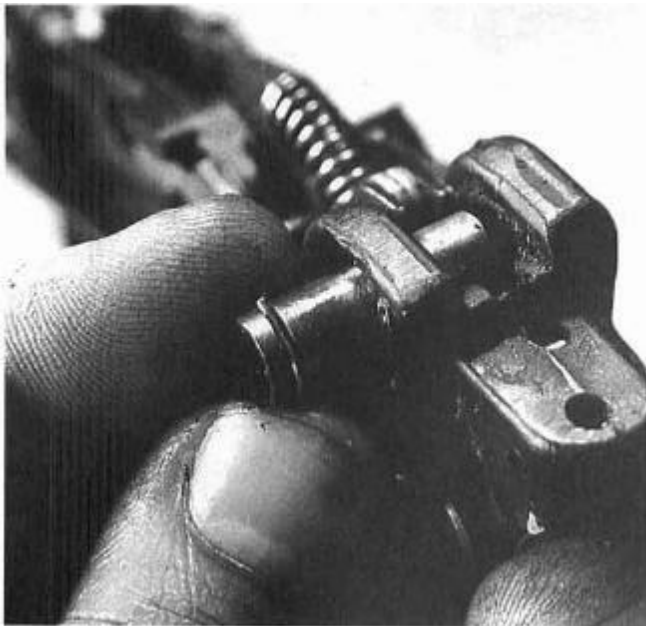
**10.** Remove the carrier spring and plunger from their hole on the right side of the housing. The carrier dog and its washer/plate are retained on the right rear wing of the carder by a cross pin that is riveted in place, and this is not removed in normal takedown, if removal is necessary for repair, be sure the wing is well supported, and drive out the pin toward the left. The pin that retains the carrier release button is also riveted, and the same advice applies.

**11.** The carrier latch is cross pinned at the front of the trigger group, The pin is of very small diameter, and is very near the edge of the alloy trigger housing, so take care when drifting it out, to avoid damage to the housing and the loops on the latch.



**12.** Restrain the hammer, pull the trigger, and ease the hammer down to the fired position.

Keep the trigger pulled to the rear, and push out the rear cross pin sleeve toward the left.





**13.** Removal of the rear cross pin sleeve will allow the top of the trigger to move to the rear



beyond its normal position, relieving the tension of the combination sear and trigger spring. The spring can now be detached from its studs on the sear and trigger and is removed upward.



**14.** Drift out the trigger pin toward the left, and remove the trigger upward, turning it slightly to

clear its connector arm past the shelf on the housing. The connectors are cross pinned to the top of the trigger, and the pin is riveted in place. If removal is necessary for repair, be sure the top of the trigger is well supported, and drive the pin out toward the right.



**15.** The sear cross pin is accessible by angling a drift punch into the top of the carrier spring hole on the right side. Nudge the pin toward the left, and remove it with smooth-jawed pliers. Remove the sear upward.

**16.** The hammer and disconnect are retained by a cross pin that is riveted over a recessed washer on the right side of the housing. If removal is necessary for repair, be sure the disconnect is supported

firmly on the left side. Use a drift punch small enough to enter the depression on the right tip of the pin, and restrain the hammer spring plunger, as it will be released as the pin clears the disconnect.





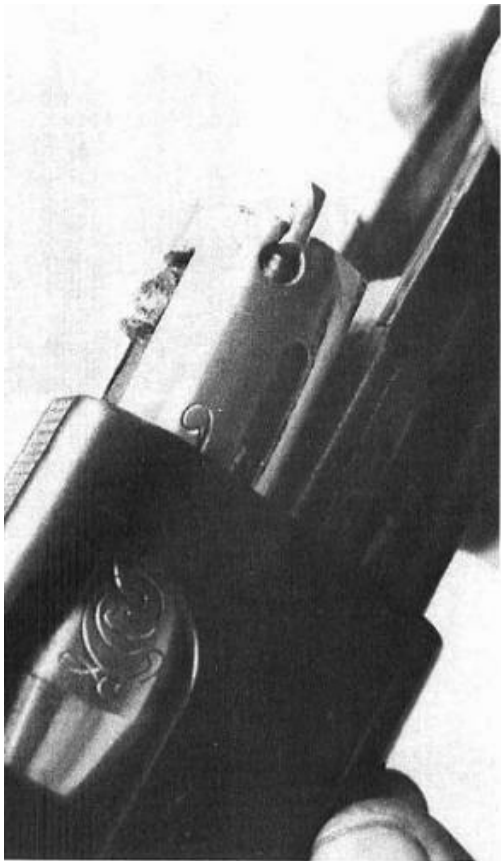
- 17.** Push out the small cross pin at the upper rear of the housing, and remove the safety spring

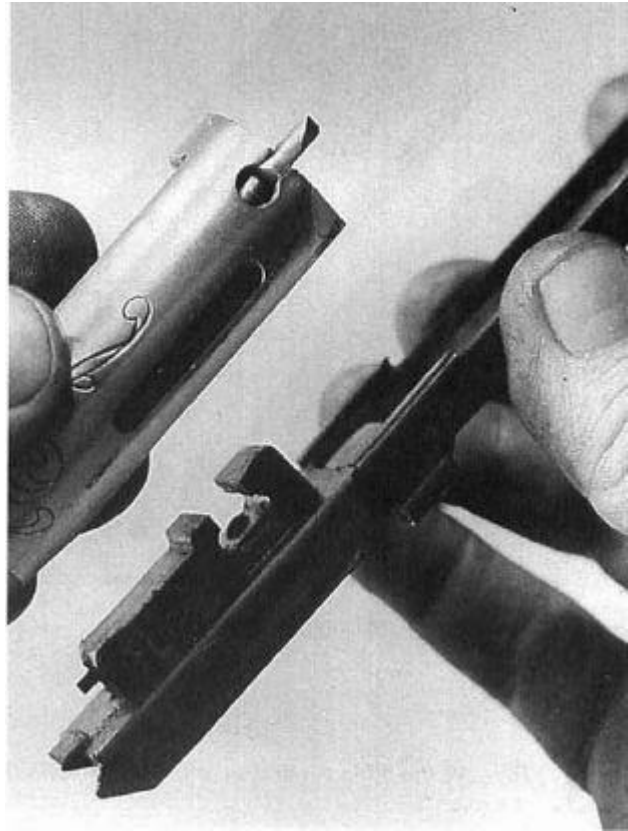


upward, along with the detent ball, if possible. Push out the safety button toward either side. If the ball can't be removed upward, wait until the button is taken out, and insert a drift punch to push the ball downward into the button tunnel for removal.



- 18.** Grip the operating handle firmly, and pull it straight out toward the right.
  
- 19.** Use a fingertip inside the receiver to depress the right shell stop, and remove the bolt and slide assembly toward the front.

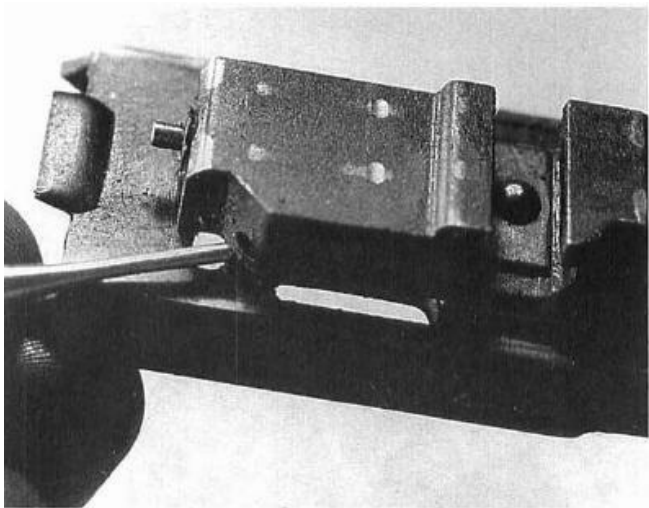




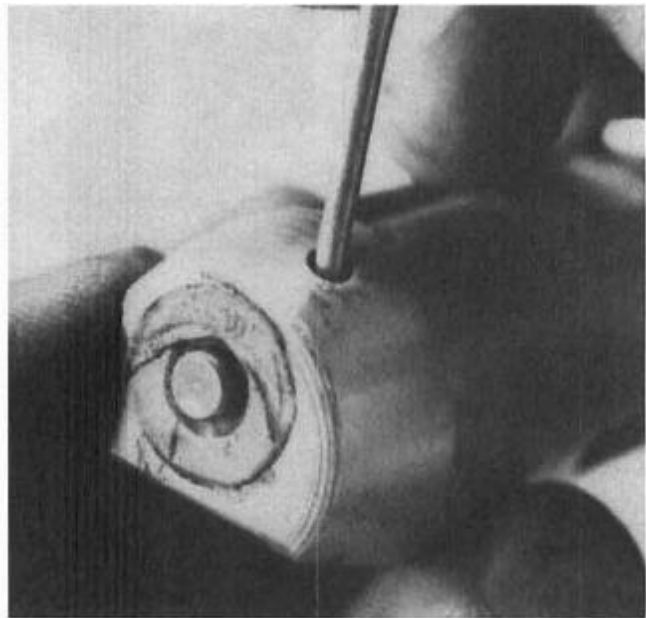
**20.** After the assembly is taken out, the bolt can be lifted off the rear of the action bar assembly.

**21.** The forend support and the action bar sleeve are not removed in normal takedown, but both can be sprung off the action bar assembly if necessary. The slide block buffer at the rear can be taken out by drifting out its cross pin, and the operating handle retaining ball and spring can be removed by depressing the

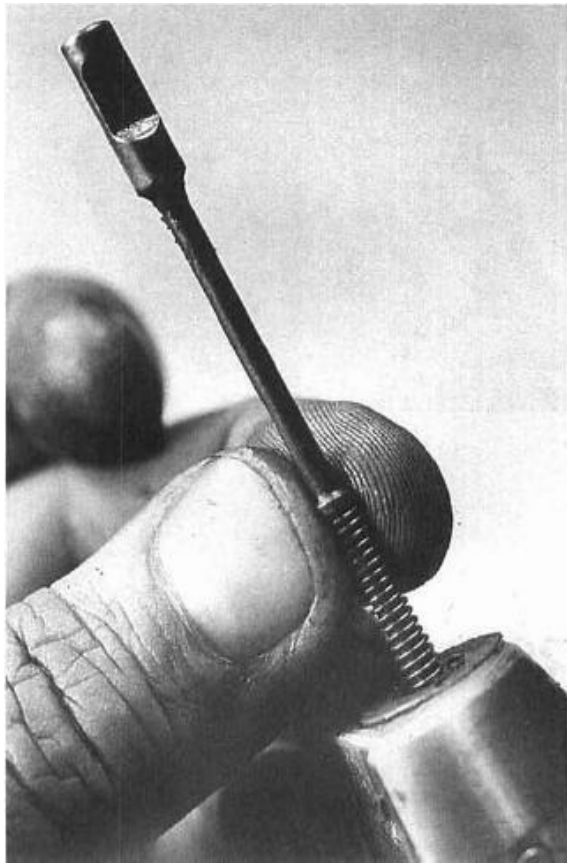
ball and sliding the retaining plate out toward the side.



**22.** Drift the vertical pin at the rear of the bolt out downward.



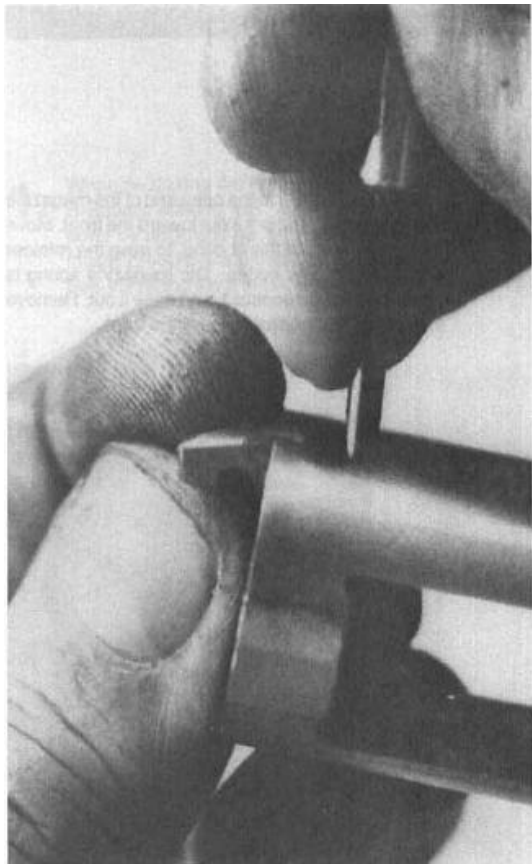




**23.** Remove the firing pin and its return spring toward the rear.



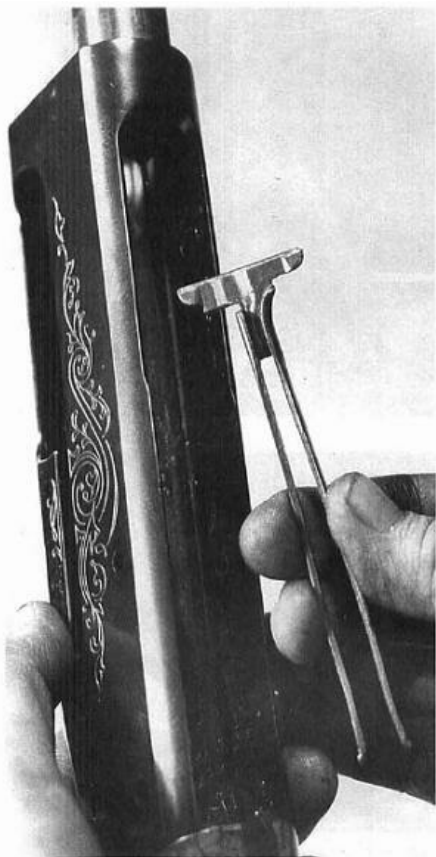
**24.** Remove the locking block downward.

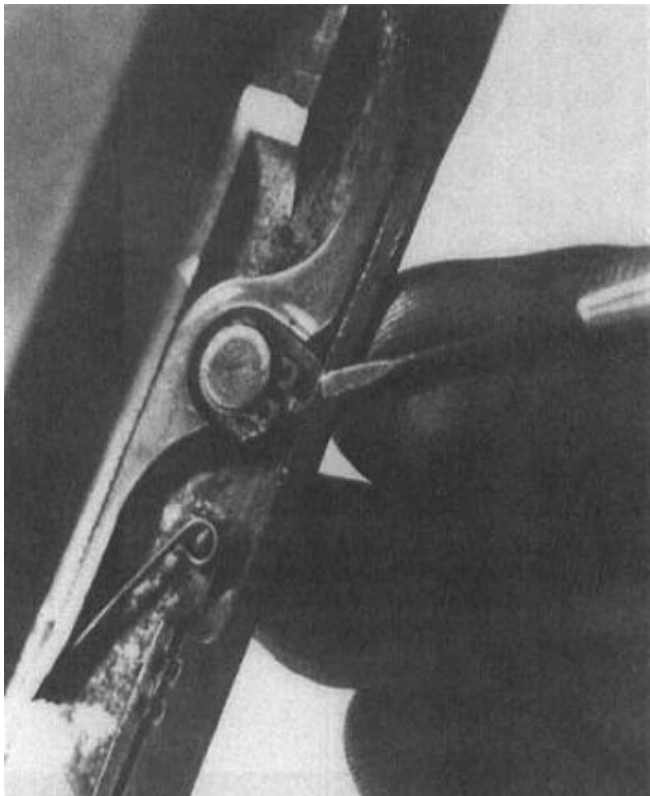


**25.** Insert a small screwdriver between the extractor and its plunger, depress the plunger toward the rear, and lift the extractor out of its recess. Control the plunger and spring, ease them out, and remove them toward the front.

**26.** Slide the bolt connector ("link") forward to disengage its rear struts from the bolt spring plunger, tilt it to free its side wings, and remove it from the bottom of the receiver.





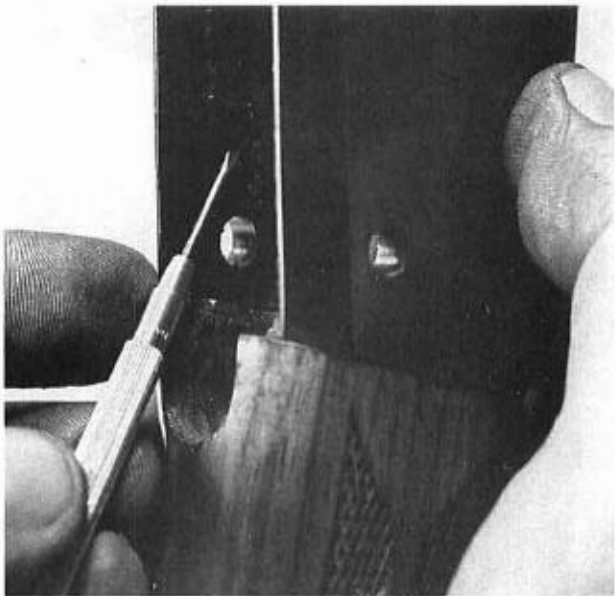




**27.** The left shell stop ("interceptor") is retained on a post inside the receiver wall by a snap ring. Spread the ring just enough to remove it, and detach the shell stop from the post. The spring for this part is staked in place on the receiver wall, and is removed only for repair.

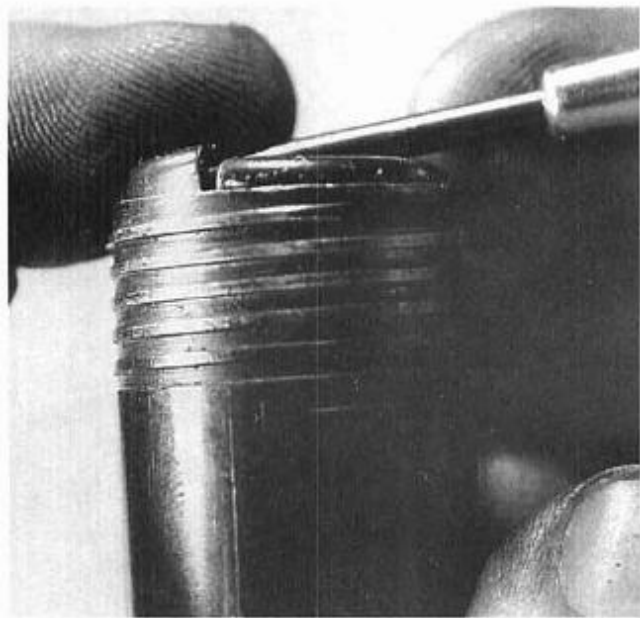
**28.** The right shell stop lies in a shallow recess inside the receiver, and is lightly staked in place at the rear. If the staking is light enough, the

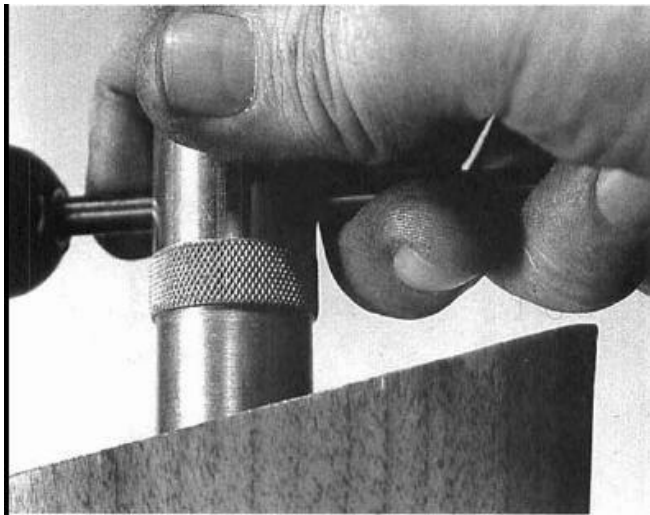
stop can be removed by prying it gently out of its recess at the rear. If the staking is too tight for this, angle a drift punch in the cross pin hole, and nudge the shell stop toward the rear, swaging the staking out of the shell stop recess.



**29.** Insert a screwdriver in the open end of the magazine spring retainer, and pry it out toward the front. Move the

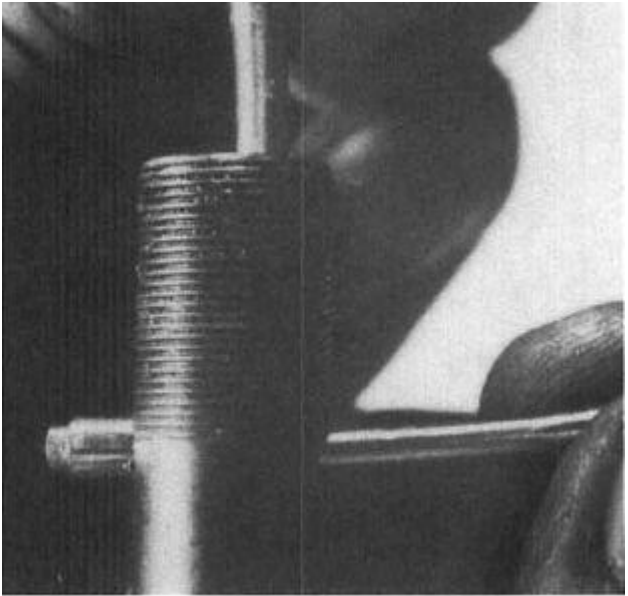
screwdriver as this is done, to raise the retainer equally around its edges. The magazine spring is under tension, so control it, and ease it out. Remove the spring and follower toward the front.





**30.** Remove the buttplate, and use a B-Square Model 1100 stock wrench or a large, wide screwdriver to back out and remove the stock retaining nut, along with its lock washer and

washer. Take off the stock and stock bearing plate toward the rear.

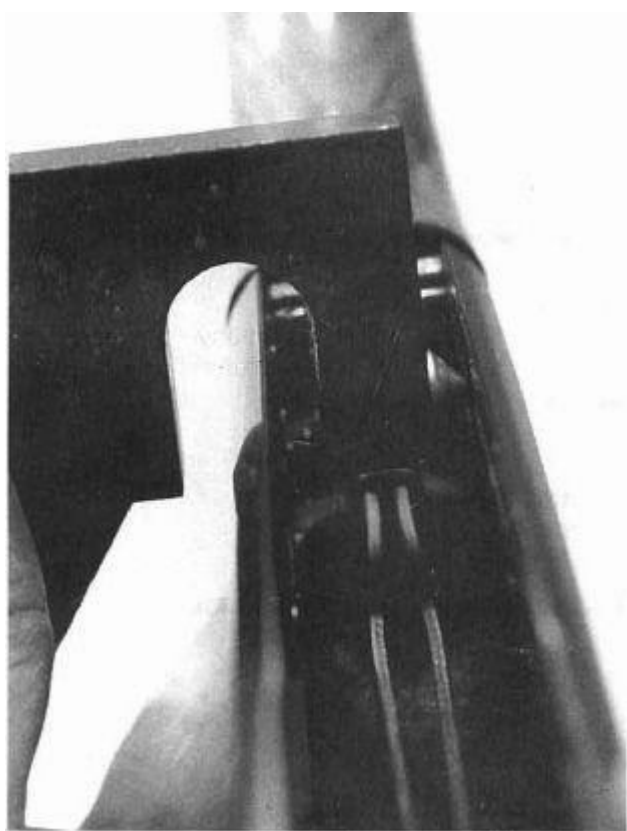


**31.** Insert a tool at the rear to restrain the bolt spring plug, and push out the retaining cross pin. Caution: The spring is under tension, so control it and ease it out. Remove the plug, spring, and follower toward the rear.

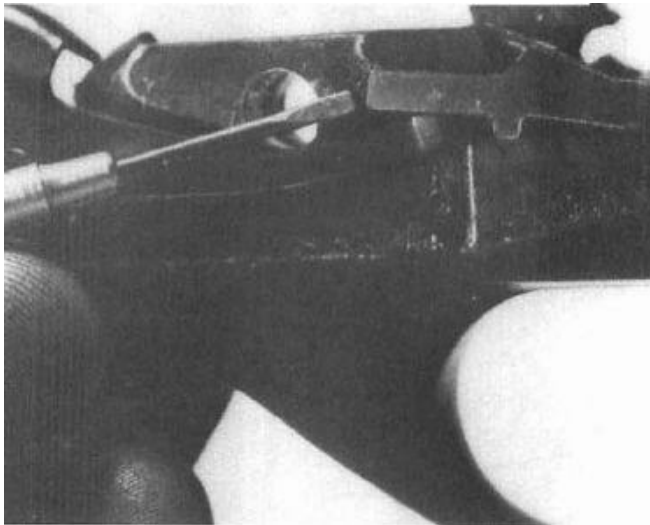


# Reassembly Tips:

1. When re-staking the right shell stop, it's best to use a B-Square staking tool, as shown. This can also be done by angling a punch into the receiver. The front trigger group cross pin can be temporarily inserted to help in holding the shell stop in place during re-staking.



2. When replacing the trigger assembly, be sure the left connector arm is installed with its forward tip above the rear tail of the disconnect, as shown.



# Ruger Red Label



**Data:** Ruger Red Label

**Origin:** United States

**Manufacturer:** Sturm, Ruger &  
Company  
Southport,  
Connecticut

**Gauges:** 12, 20

**Overall  
length:** 43 inches  
(with 26-inch  
barrel)

**Barrel length:** 26 & 28 inches

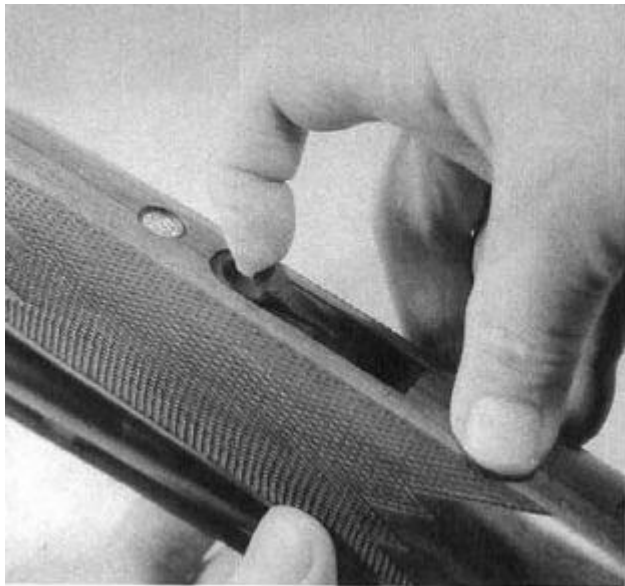
**Weight:** 7 to 7-1/2 pounds

One of the slimmest and most well-balanced of all over/under designs, the Ruger Red Label was introduced in 20-gauge only in 1977. Five years later the gun was also offered in 12-gauge. Internally, the Red Label has typical Ruger engineering-all parts have an extra margin of strength. The gun shown here is an early 20-gauge version.



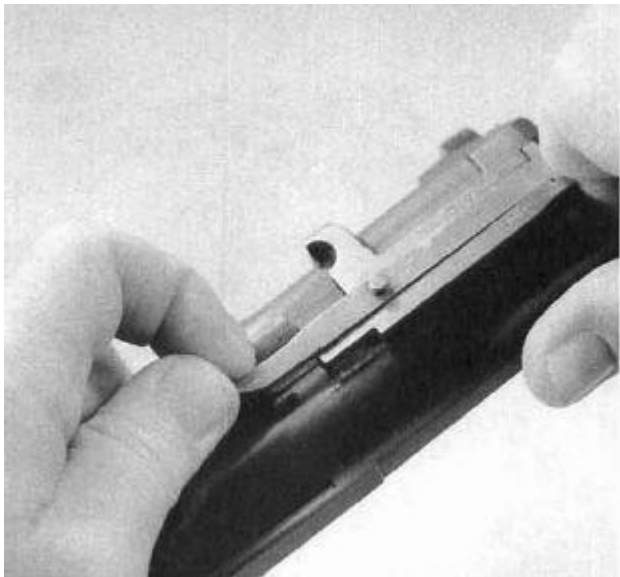
# Disassembly:

1. Operate the forend latch, and remove the forend.



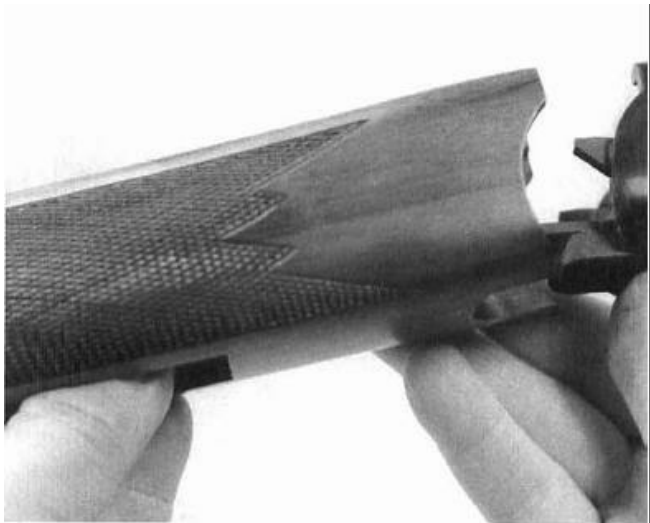
- 2.** Operate the barrel latch, open the action, and remove the barrel unit.





**3.** To remove the ejectors and their springs, push them all the way forward, and tip the front end outward. Control the powerful

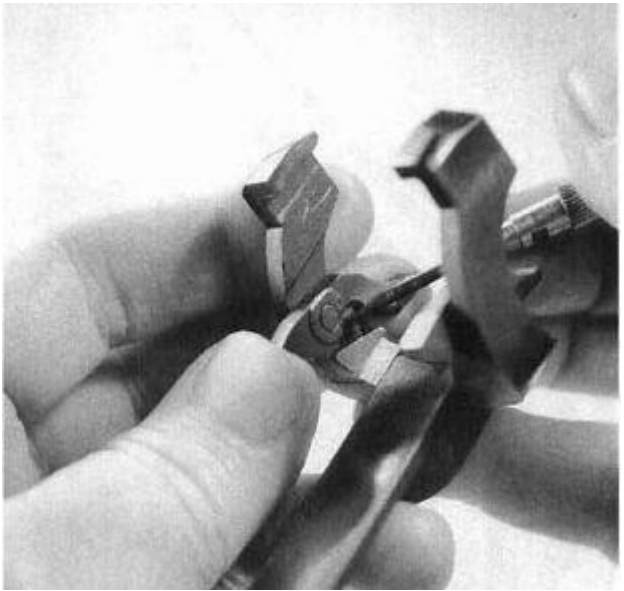
springs.



4. Remove the screw on the inside of the forend. Tip the front of the forend iron inward, then remove the assembly toward

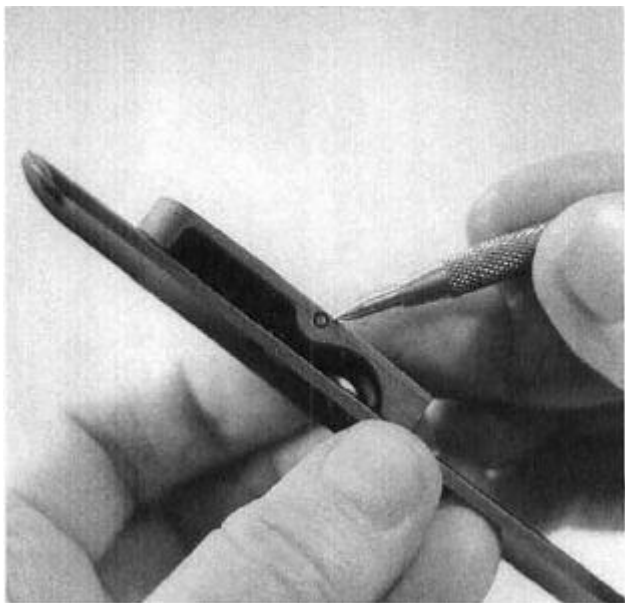
the rear.

- 5.** Use a tool to depress the plungers of the ejector trip levers, keeping control of the plungers and springs. and move the levers off their posts inward for removal.

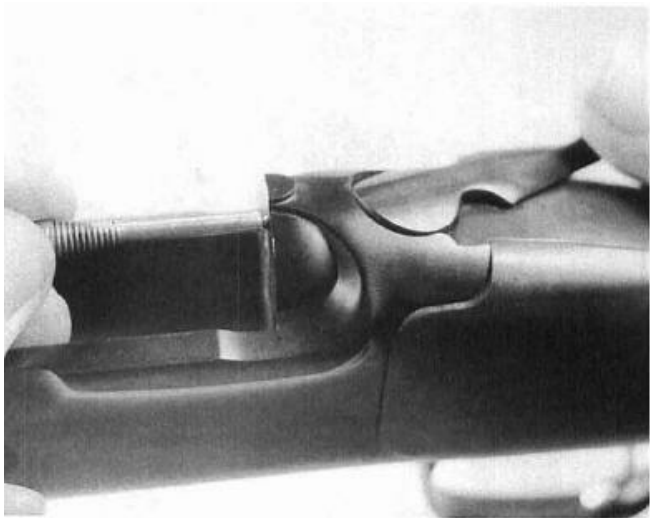


6. The forend latch lever is retained and pivoted by a cross pin. Control the plunger and spring when the pin is

drifted out.







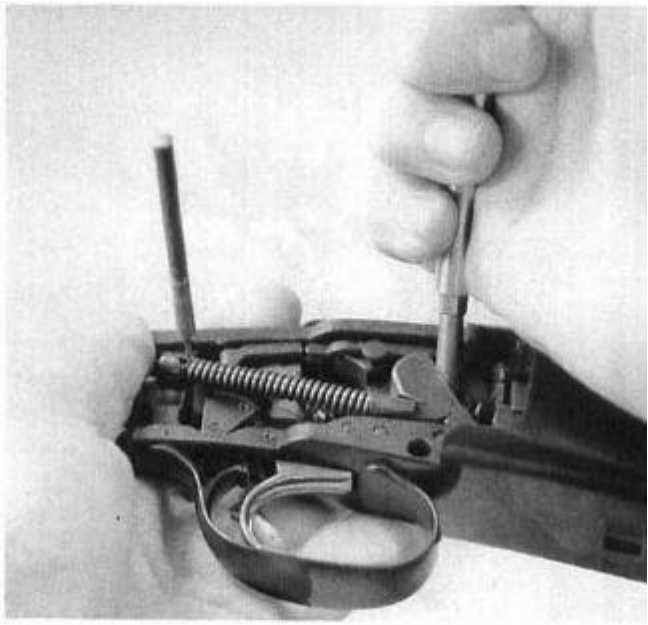
7. Depress the barrel latch detent to bring the latch lever back to the closed position.



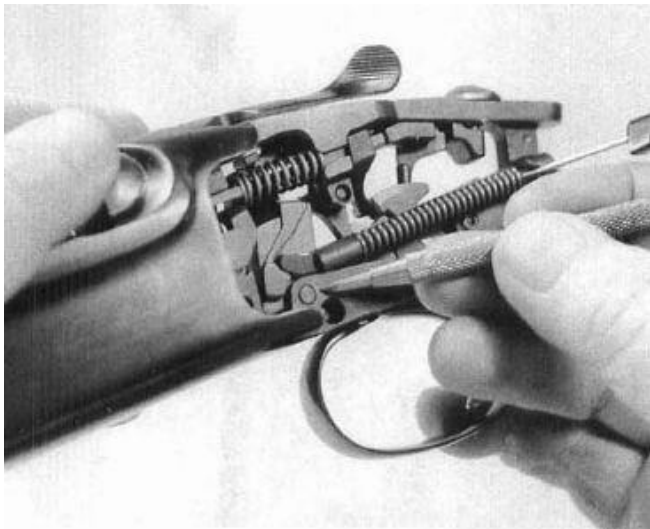
8. Remove the two Phillips-type screws in the recoil pad, and remove it from the stock. Use a long-shanked screwdriver to take out the stock bolt and washer, and remove the

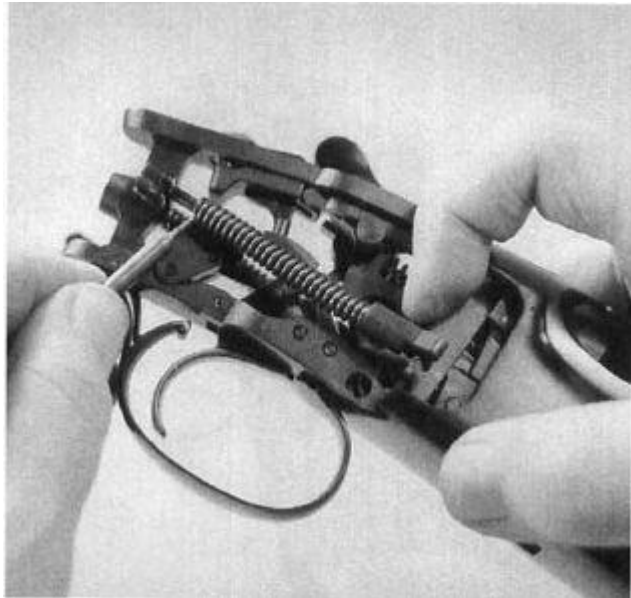
buttstock toward the rear.

9. Push back the right hammer until a small hole is visible in the spring guide at the rear, and insert a small pin or drift punch in the hole to trap the spring. Repeat this operation on the opposite side, with the left hammer.



**10.** Push out the hammer pivot pin.





**11.** Pull the trigger and push the right hammer all the way forward. Turn the guide and trapped spring to the position

shown, and remove it.

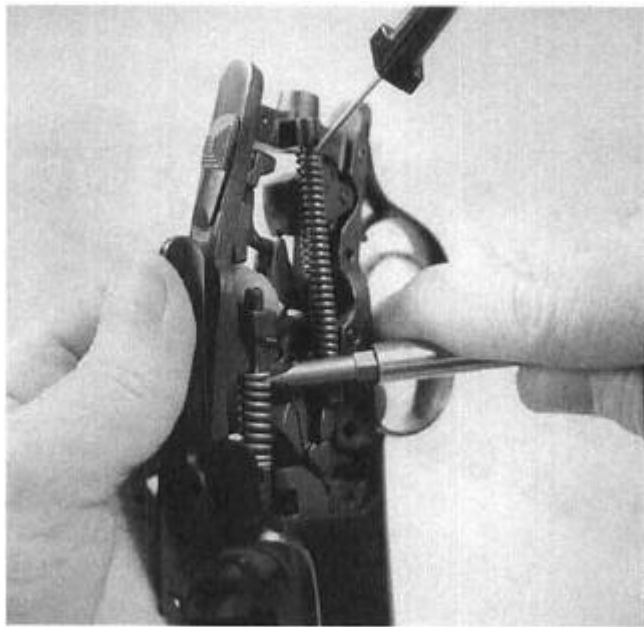


- 12.** Tip the right hammer back and move it upward, then remove it toward the side. The left hammer and spring assembly

are not removed at this time, but there is access to the firing pins, if one needs to be replaced.

- 13.** Use a tool to push the barrel latch spring slightly forward, out of its recess, and push the rear end of the barrel latch spring guide out toward the left. A hole is provided in the guide bar for insertion of a tool to trap the spring, but this is more useful for reassembly.

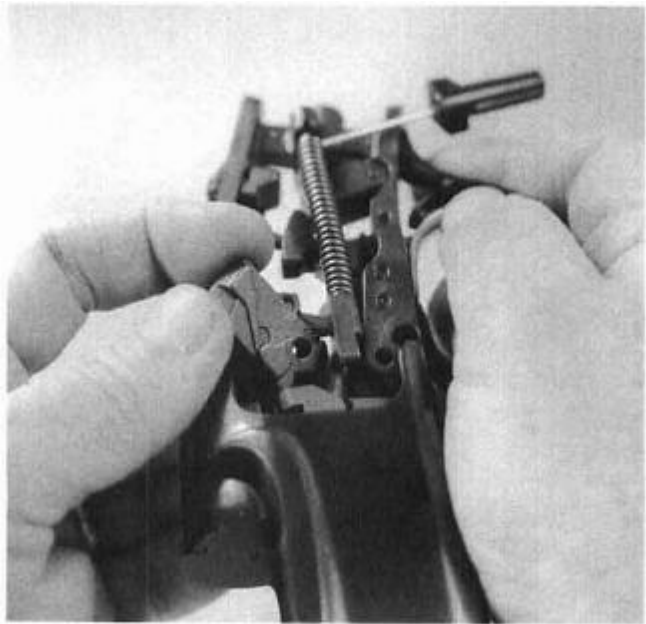




**14.** Remove the barrel latch spring assembly toward the left. A small roll pin retains the base

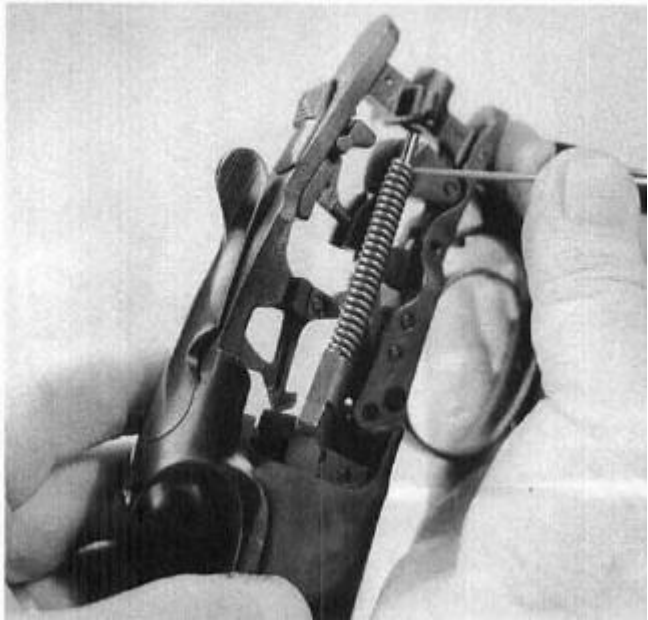
piece at the rear, if the spring needs to be removed.





**15.** With the safety in off-safe position and the trigger depressed, move the left

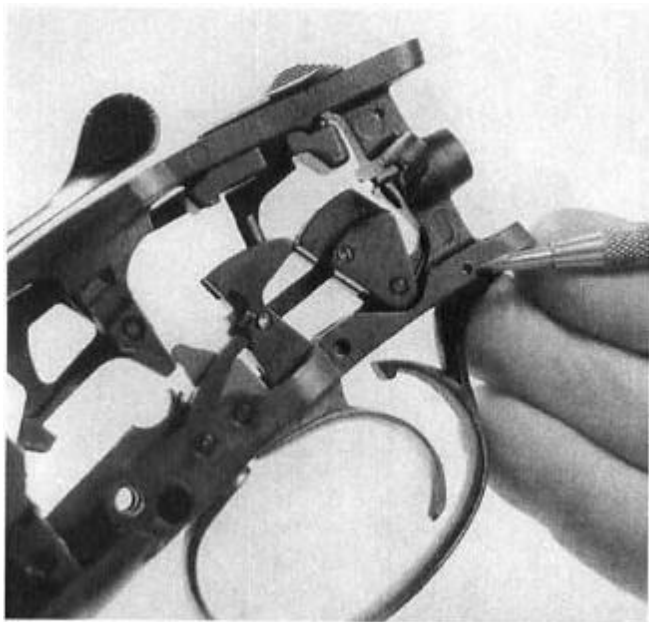
hammer upward, then tip it outward for removal.



**16.** Remove the left hammer spring

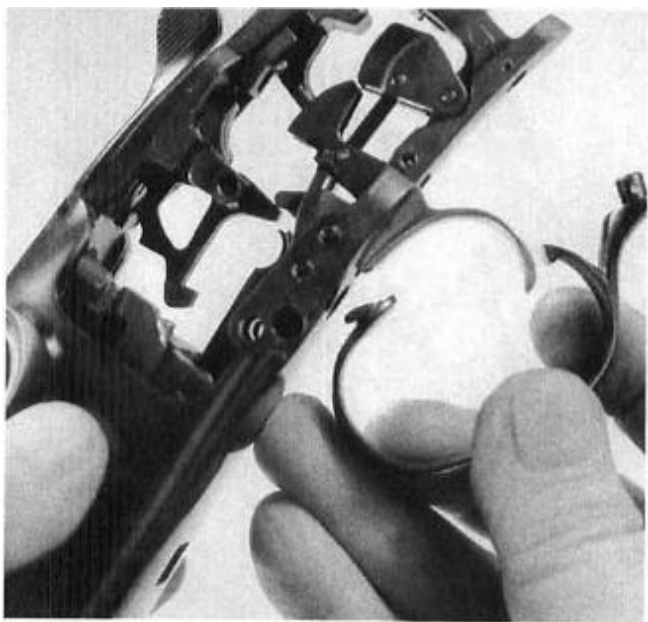
and guide.

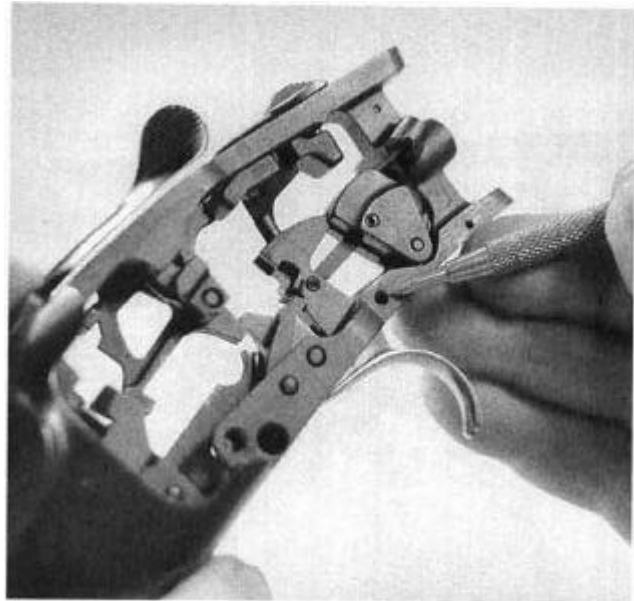
- 17.** Drift out the small roll cross pin at the lower rear of the receiver.



**18.** The trigger guard will spring outward when the pin is removed. Take off the guard

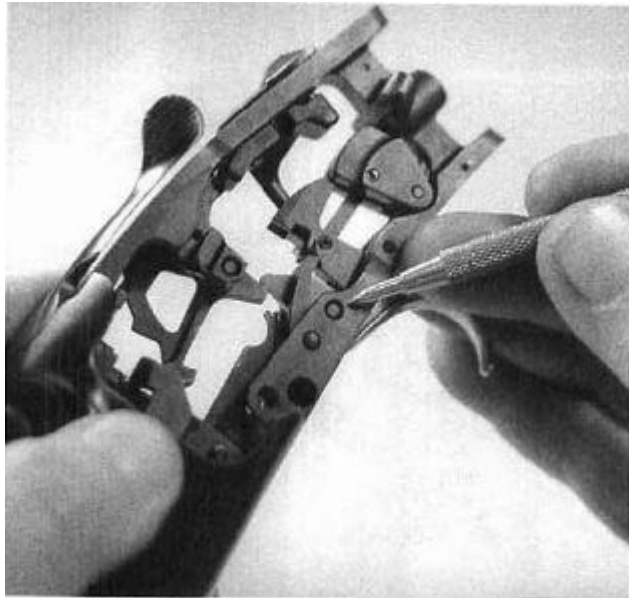
downward.





**19.** Drift out the trigger stop cross pin.

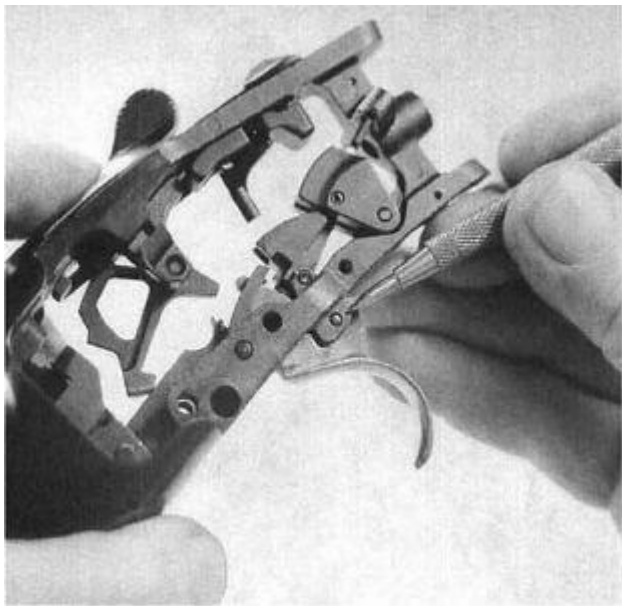




**20.** Push out the trigger cross pin.

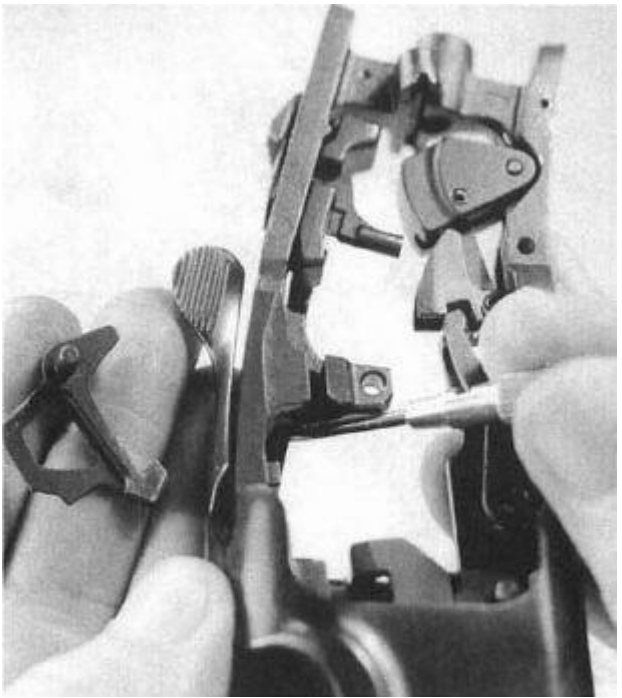
**21.** Move the trigger downward

until the selector cross pin is exposed, and push it out.



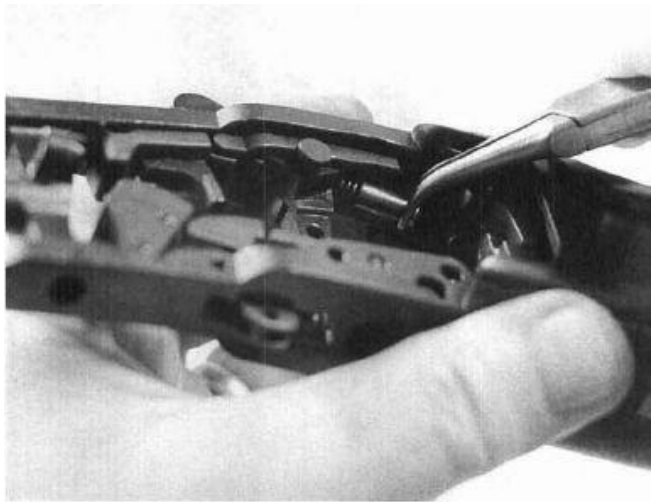
**22.** Remove the trigger downward.





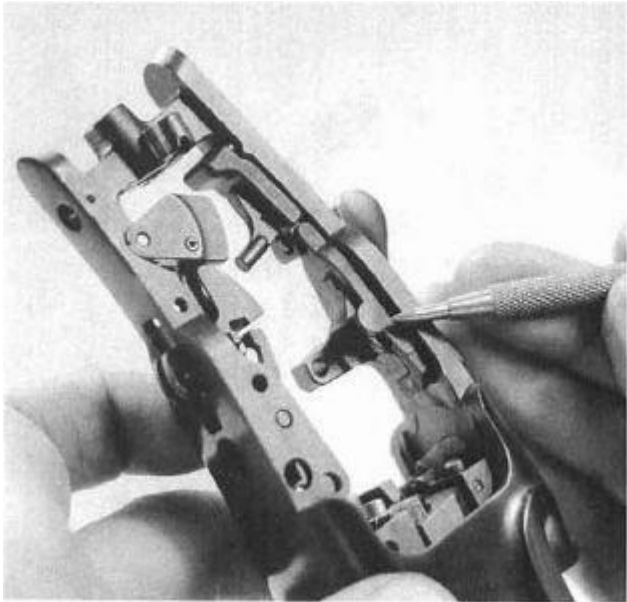
**23.** With the safety in on-safe position, depress the plunger,

and take out the hammer interruptor toward the right. The plunger and spring will be stopped by the safety connector bar.



**24.** Move the safety to off-safe position, and take out the interruptor plunger and spring.

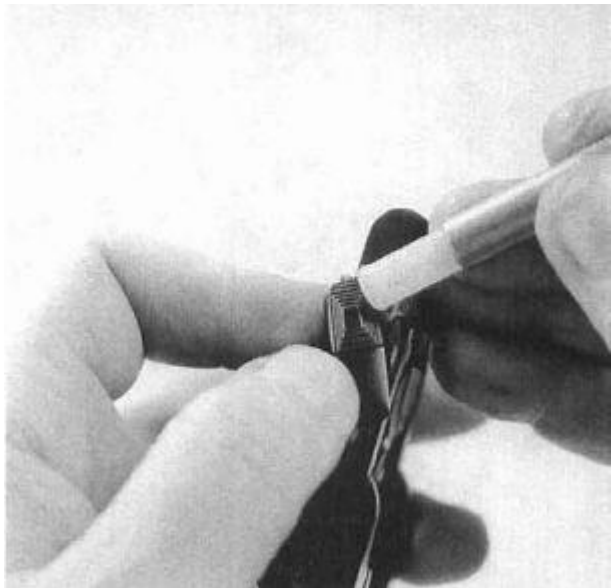
**25.** Drift out the safety bar retaining stud toward the right.



**26.** Remove the safety bar.

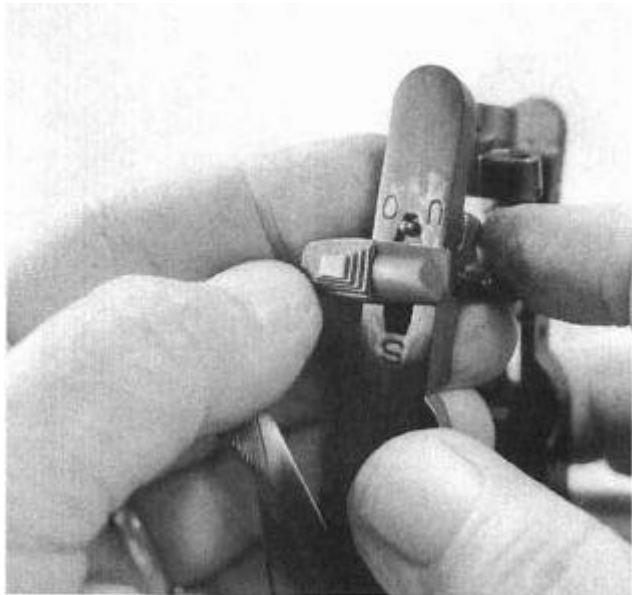






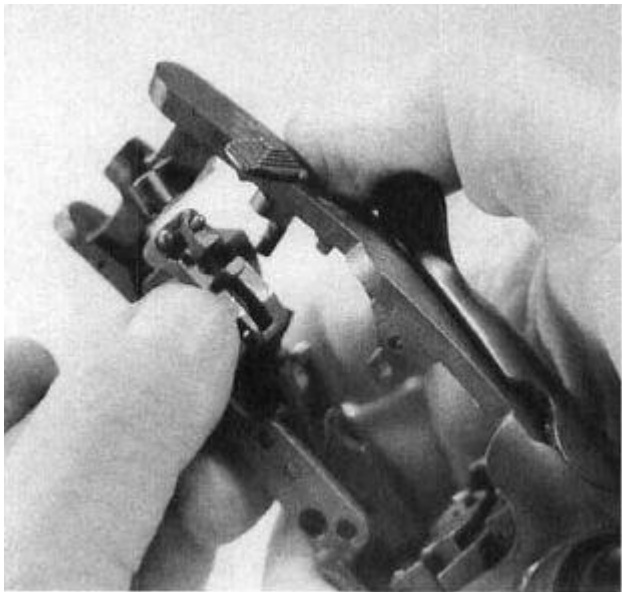
**27.** With the safety in on-safe position and the thumb-piece to the right (with the "U" exposed), use a non-marring

tool such as a nylon drift to bump the rear of the thumb-piece toward the right. Caution: Cover the parts with a shop cloth, as the thumbpiece plunger and spring will be freed upward as the edge of the thumb-piece clears.

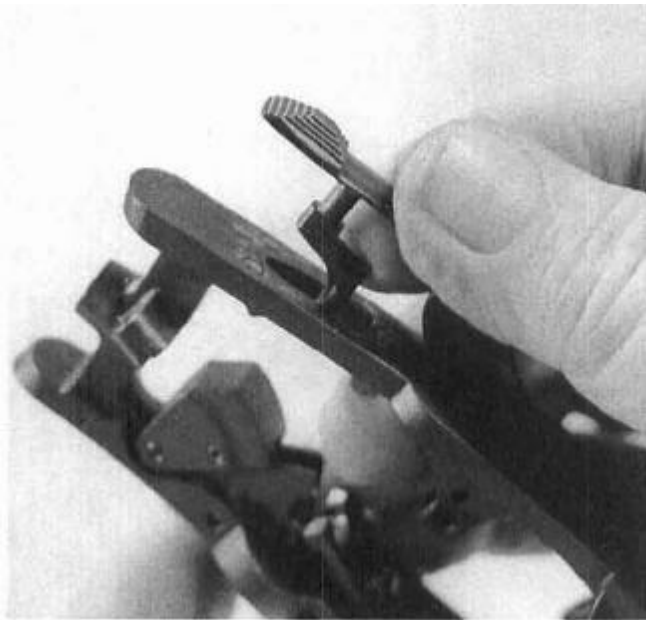


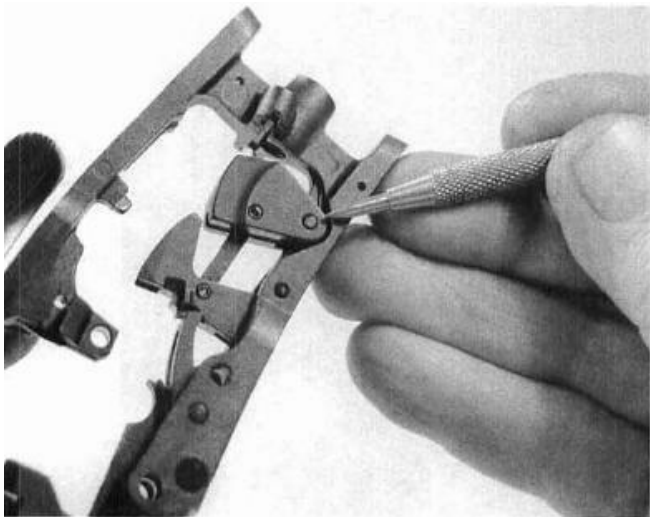
**28.** Keeping the plunger under control, turn the thumb-piece to the position shown.

**29.** Move the safety block downward and remove it toward the right. Take care that the three plungers and their springs are not lost.



**30.** Turn the thumb-piece back to center and remove it upward.

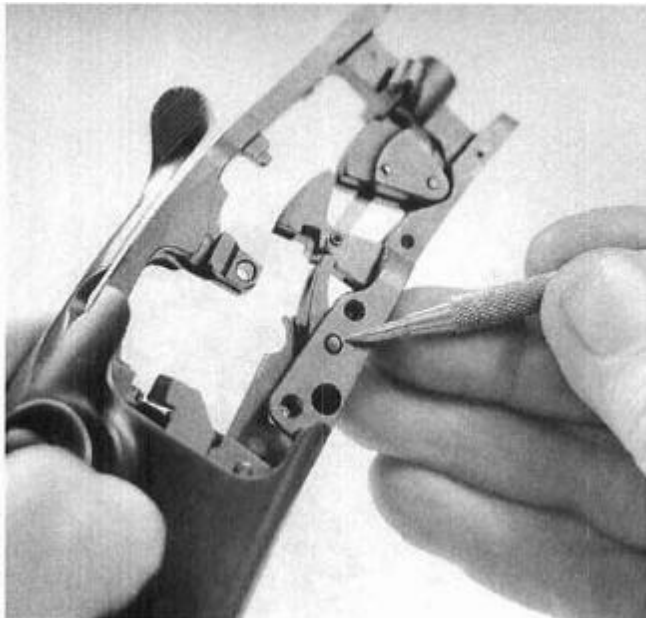




**31.** Removal of the cross pin in the inertia block will allow the block and its torsion spring to be taken out, along with the link and the attached sear selector. The link is attached

to the two parts by roll cross pins. Unless removal is necessary for repair, this system is best left in place. Caution: The inertia block spring will be released when the pivot pin is removed.

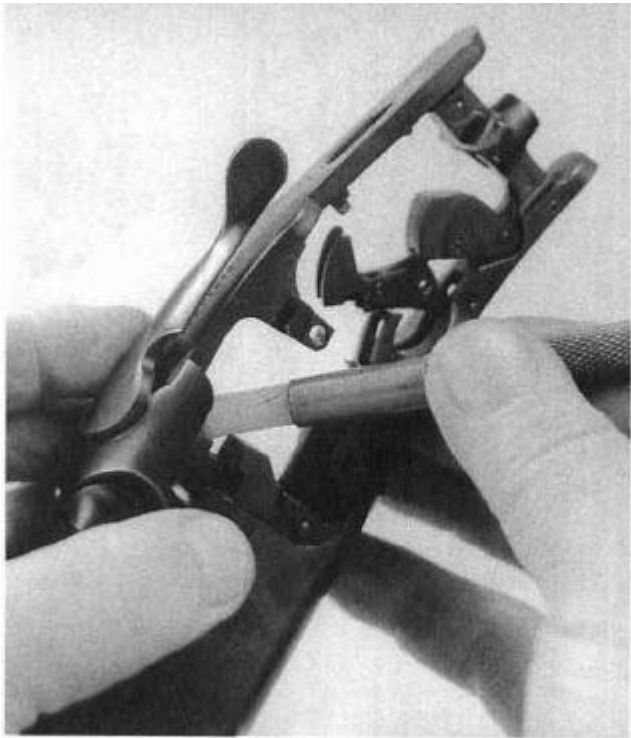




**32.** A single cross pin pivots and retains both sears, and also retains the torsion spring that powers them. If this system is

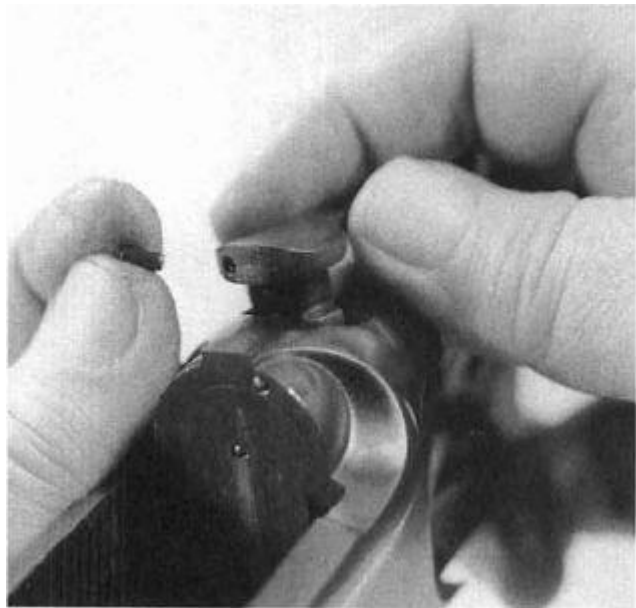
to be taken out, control the spring.

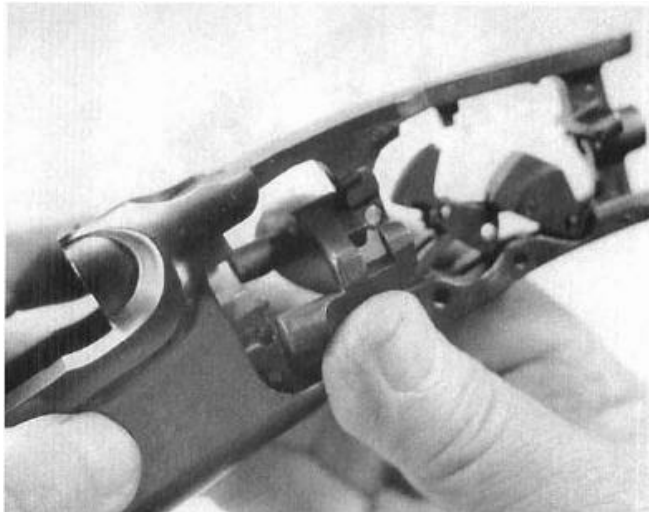
- 33.** Use a non-marring tool to bump the barrel latch lever base upward, with the latch in central position. Hold a shop cloth over the top of the receiver when this is done. After the lever is removed, the detent pin can be taken out rearward.



**34.** As the latch lever clears its

recess, the small retaining plunger and strong spring will be released at the front, slightly off-center toward the right. This is the reason for covering the top as this operation is done.

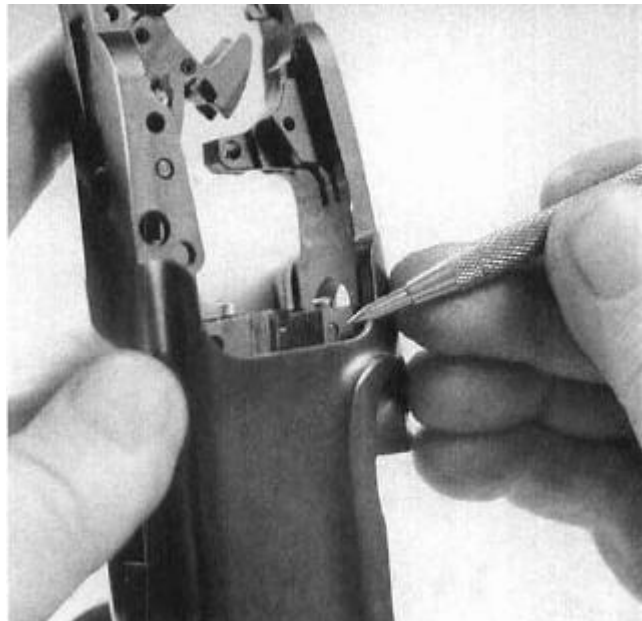




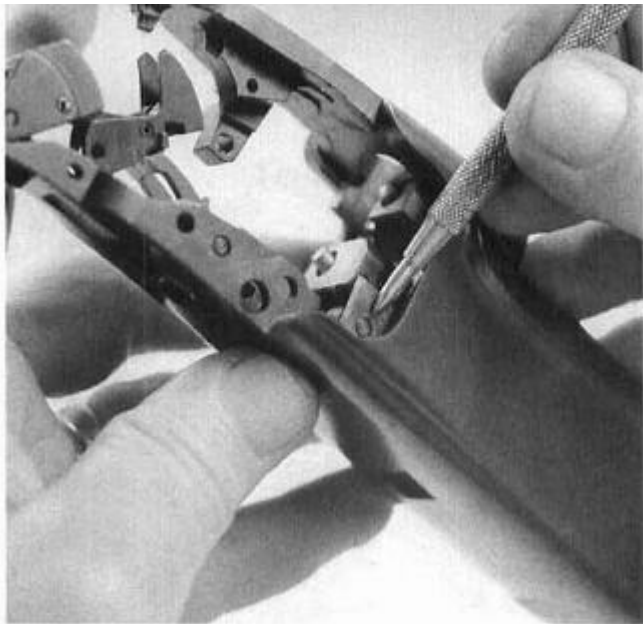
**35.** Move the locking block rearward, and take it out toward the left.

**36.** Both firing pins and their

return springs are retained by cross pins. The upper retaining pin is drifted out toward the right, and the lower one toward the left.





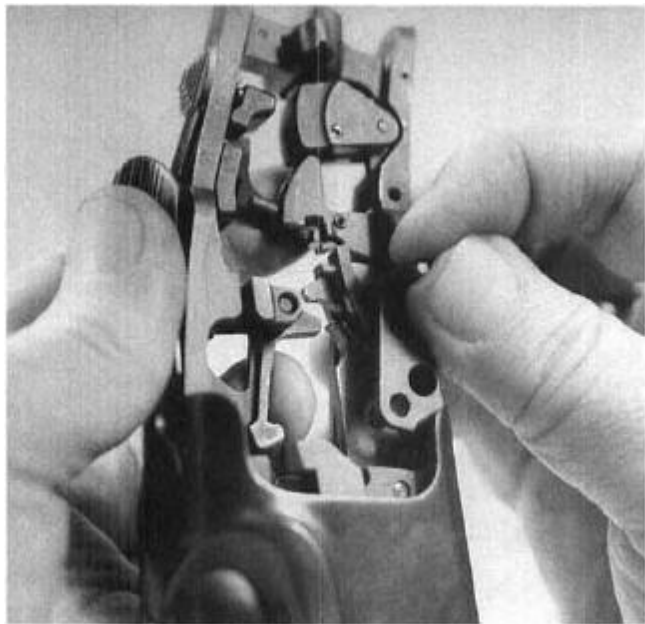


**37.** Drifting out this cross pin will allow removal of the cocking cams and their separate

springs toward the rear, and the cocking rods toward the front. The torsion springs will be released as the pin is removed, so control them. Each cam also has a separate bushing.

# Reassembly Tips:

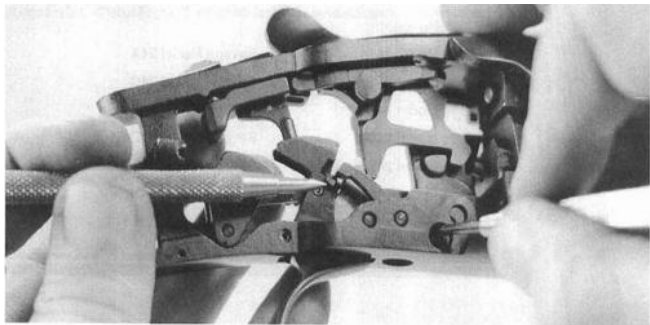
1. As the trigger is moved into place for replacement of the cross pin, depress the hammer interruptor upward so it won't bear against the trigger and make alignment difficult.

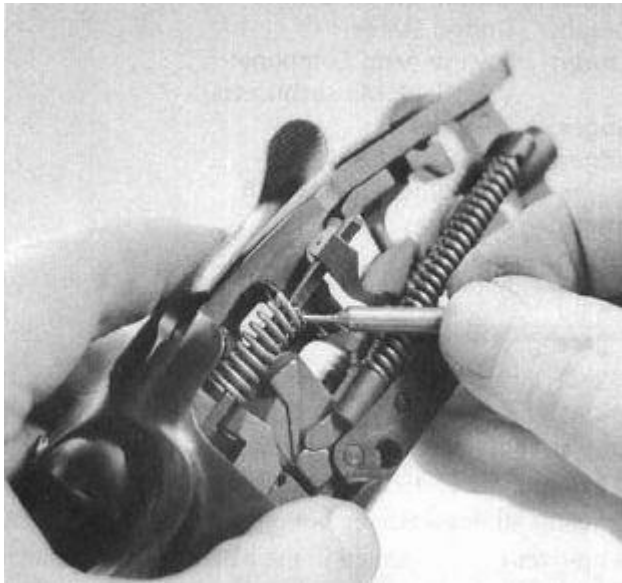




2. When the trigger limit pin is reinstalled, be sure the trigger is pulled for clearance.

**3.** Before the hammers and hammer spring units are re- installed, insert a tool on each side to engage the sears with the selector. Then depress the trigger for sear clearance as the hammers are put into position for insertion of the cross pin.

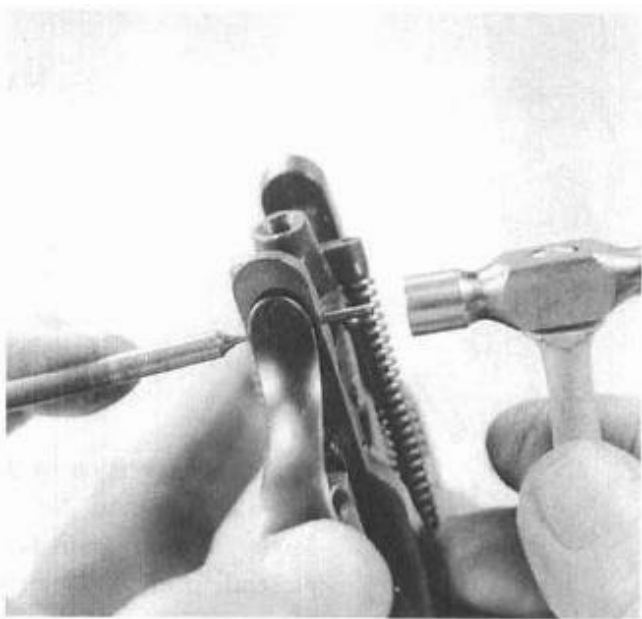




4. When installing the barrel latch spring assembly, the spring can be pre-compressed and held with a tool inserted in the



mid-hole in the guide.



**5.** As the trigger guard is reinstalled, use a drift to hold

it for insertion of the cross  
pin.

# **Savage Model 24D**



## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Savage Model 24D also apply to the following guns:

**Savage Model 24**

**Savage Model 248**

**Savage Model 24DE**

**Savage Model 24DL**

**Savage Model 24D Series P**

**Savage Model 24E**

**Savage Model 245**

**Savage Model 24A**

**Savage Model 24C**

**Savage Model 24DH**

**Savage Model 24D Series M**

**Savage Model 24D Series S**

**Savage Model 24H**

# **Stevens Model 22-410**

Data:	Savage Model 24D
Origin:	United States
Manufacturer:	Savage Arms Company Westfield, Massachusetts
Gauges:	20 and 410
Cartridges:	22 Short, Long, Long Rifle, or 22 WMR
Overall length:	40 inches

Barrel length:	24 inches
Weight:	6-3/4 pounds

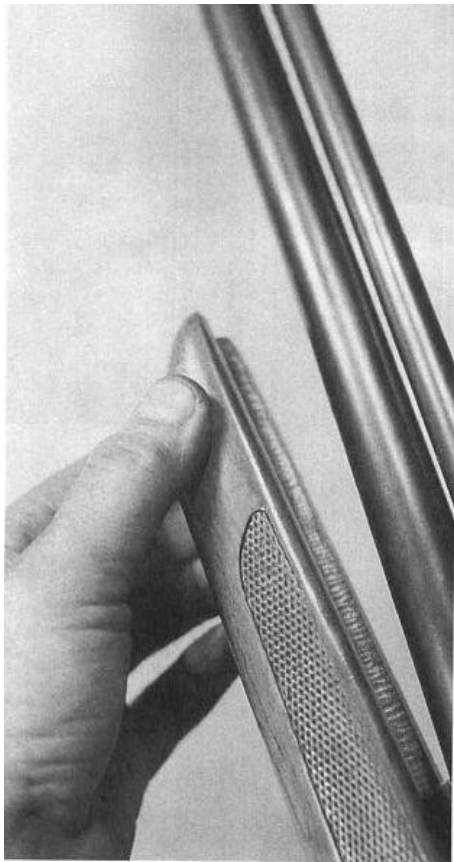
The original version of this gun was introduced under the Stevens name in 1918, and was called the "No. 22-410." Beginning in 1950, it was made by Savage as the Model 24. Early guns had a vertically sliding selector button on the right side. As presently made, the selector is a tip-over type, mounted in the hammer nose, a much better



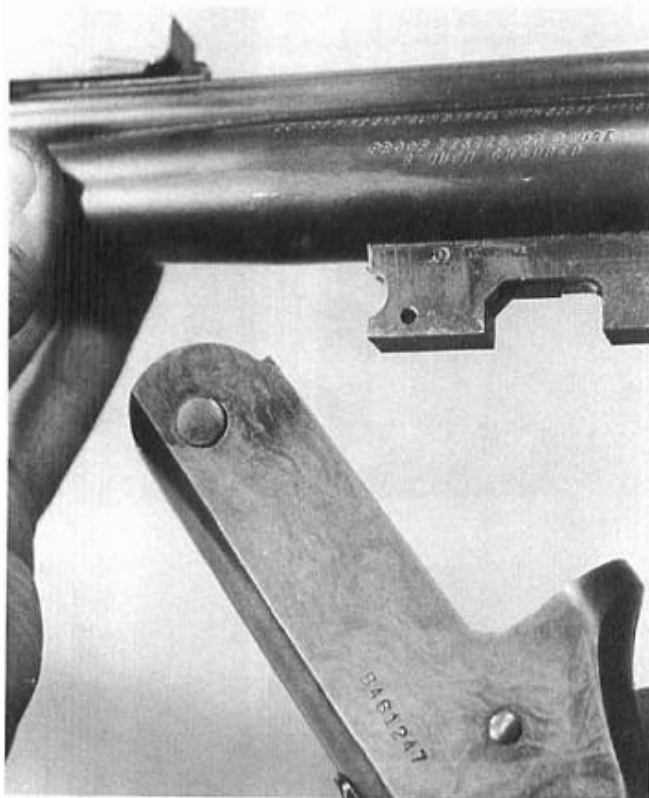
arrangement. Beside the original 22-over-410 combination, the gun is now available in 22 WMR and 20-gauge, and there is also a shorter "camper" version, the Model 24C. Mechanically, the Model 24C and Model 24D are the same. These instructions can be generally applied to all variations.

# Disassembly:

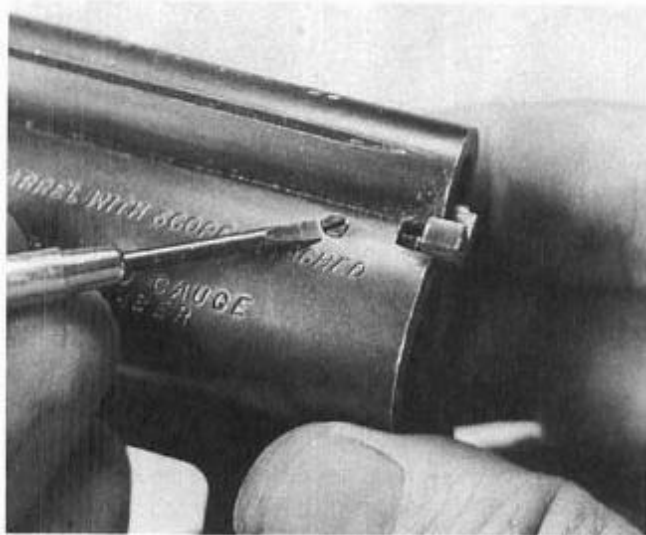
1. Pull the front of the forend away from the barrel, and remove the forend downward and toward the front.



2. Operate the barrel latch lever, tip the barrel unit downward beyond its normal open position, and remove the barrels upward.

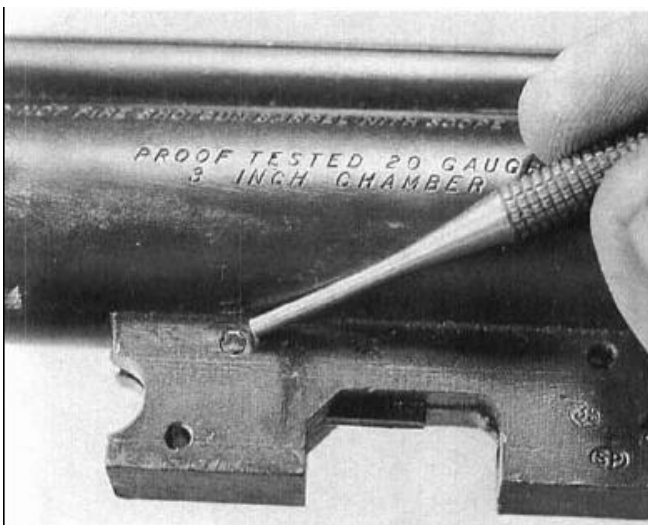


**3.** Removal of the small screw on the left side of the barrel unit beside the 22 ejector will allow the ejector and its spring to be taken out toward the rear.



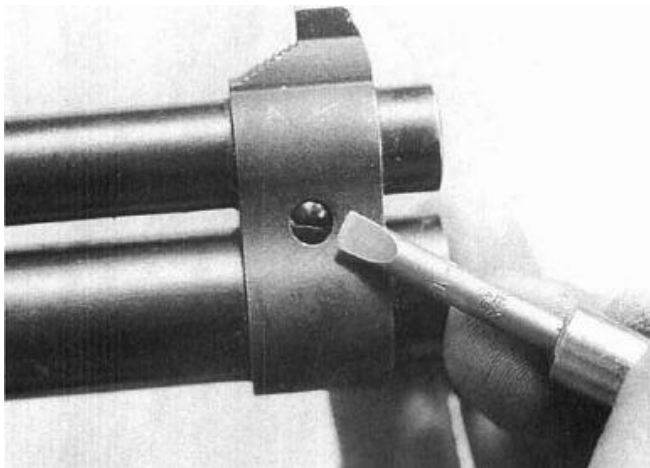
4. Drifting out the pin at the upper front of the barrel underlug will allow the ejector for the shotgun barrel and its spring to be taken out toward the rear.

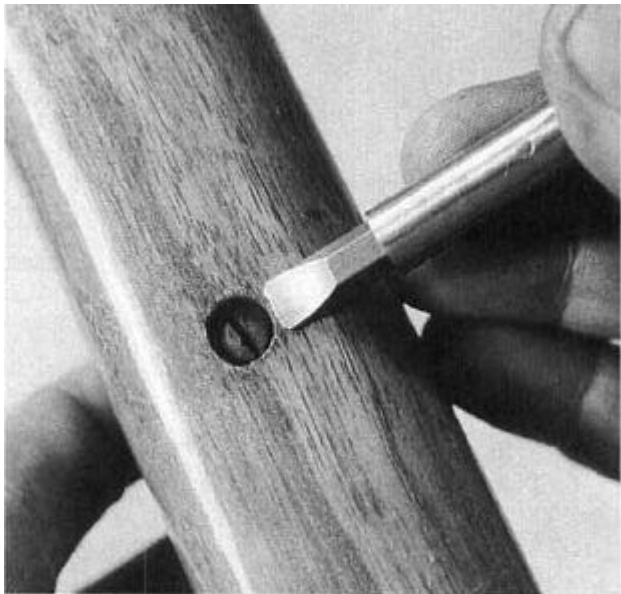
Note that on some variations of this gun the ejector is a trip-type, with a separate catch lever and spring retained by additional pins across the underlug.





- 5.** Removal of the cross screw in the barrel band will allow the band and integral front sight to be taken off toward the front.

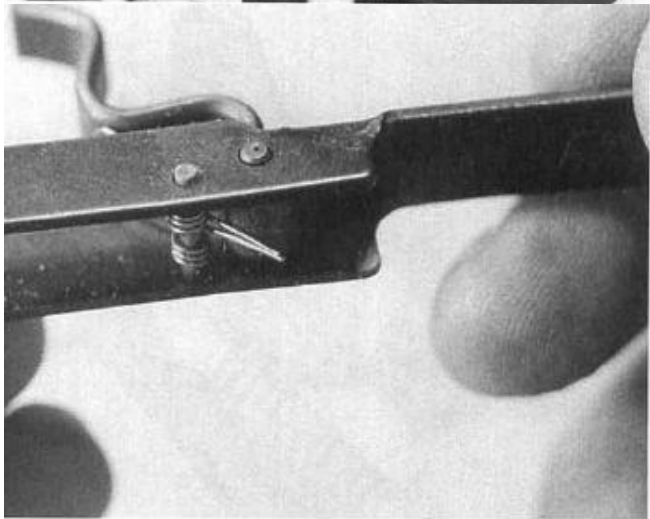
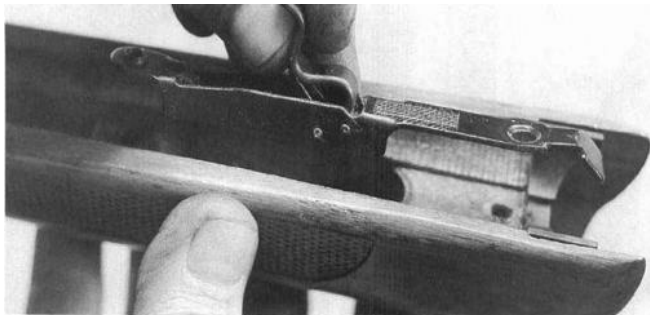




6. Remove the vertical screw on the underside at the center of the forend.



7. Remove the vertical wood screw on the inside at the rear of the forend spring housing.
8. Remove the spring housing upward. Removal of the two screws at the rear of the forend will allow the forend base to be taken off toward the rear.



9. Pushing out the two cross pins in the spring housing will allow removal of the forend latch spring and its small round-wire positioning spring.

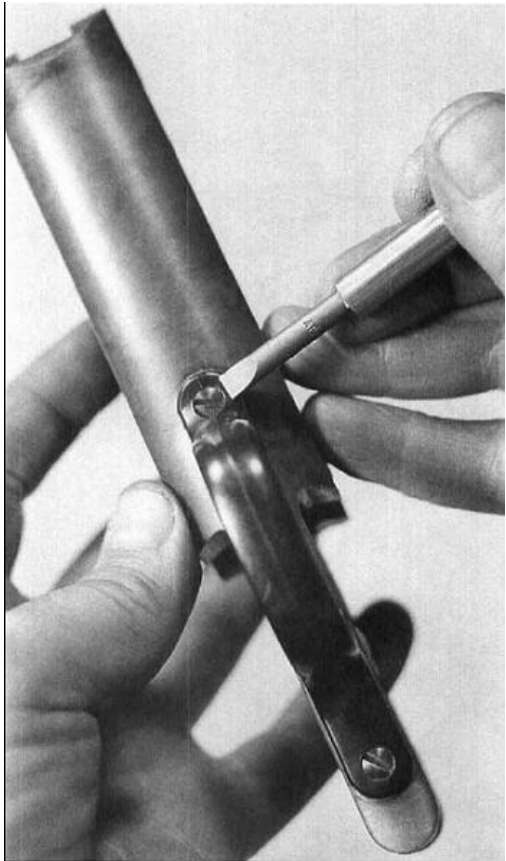
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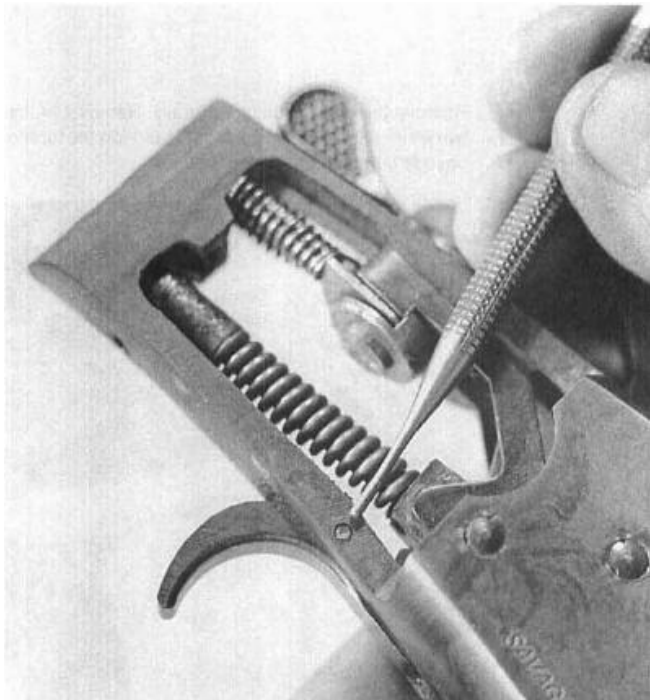
- 10.** Remove the buttplate, and use a B-Square stock tool or a long-shanked screwdriver to back out the stock bolt. Remove the stock bolt, washer, and stock toward the rear.
  
- 11.** Remove the screws at the front and rear of the trigger guard, and take off the guard downward. Note that on earlier guns, the front guard screw enters the guard from inside the receiver. In this type, the head of the screw is difficult



to reach without removal of the internal parts, but it can be done by cocking the hammer and inserting a slim screwdriver in front of the hammer, viewing the screw slot engagement from the front of the receiver.



**12.** Drift out the trigger cross pin. and remove the trigger and its spring downward. The trigger spring is under slight tension, so control it during removal.

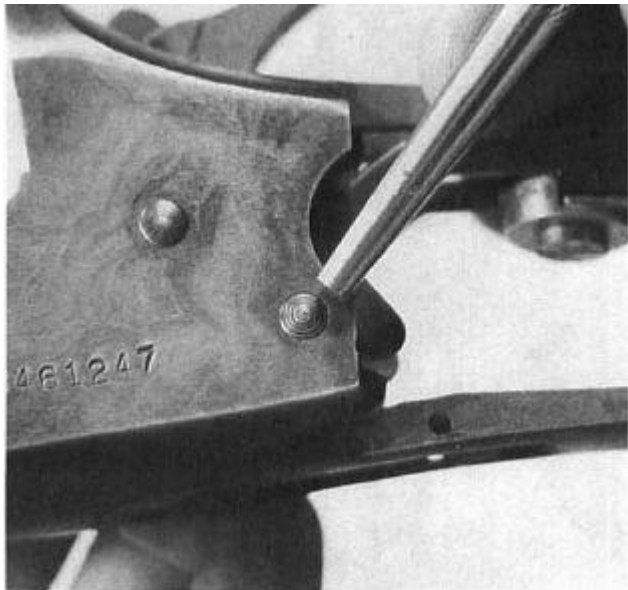




- 13.** Use a tool to nudge or tap the hammer spring base out of its recess in the receiver, and remove the base, spring, and guide toward the rear. The hammer must be in the fired

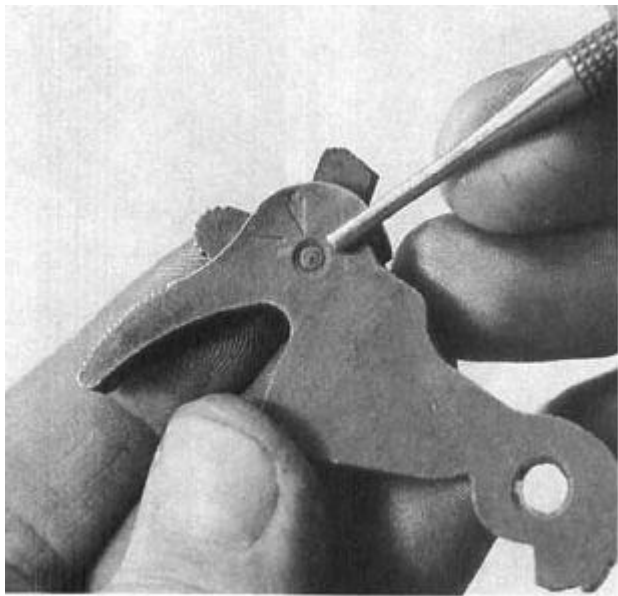
position, of course. Caution: The spring is under tension, even at rest, so control it.

- 14.** Drift out the large cross pin at the lower rear of the receiver. and remove the hammer upward. If the pins are all as originally installed, they should be drifted out toward the right. Check to see which end of the pins have an enlarged and grooved head.

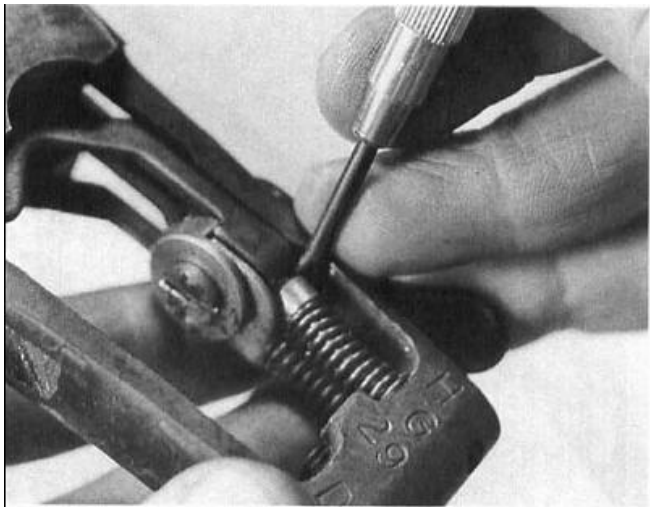


- 15.** release the selector and its spring and plunger for Drifting out the cross pin in the hammer nose will removal,

but except for repair this system is best left in place.

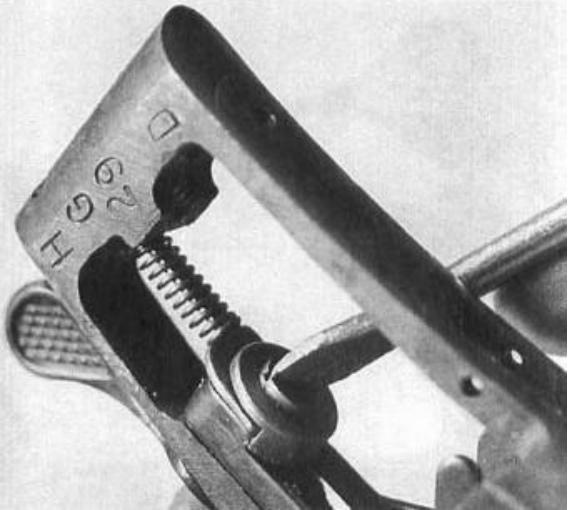






- 16.** Insert a screwdriver behind the main barrel latch spring on the left side of the receiver, and lever the plunger outward and toward the rear for removal. Hold a fingertip

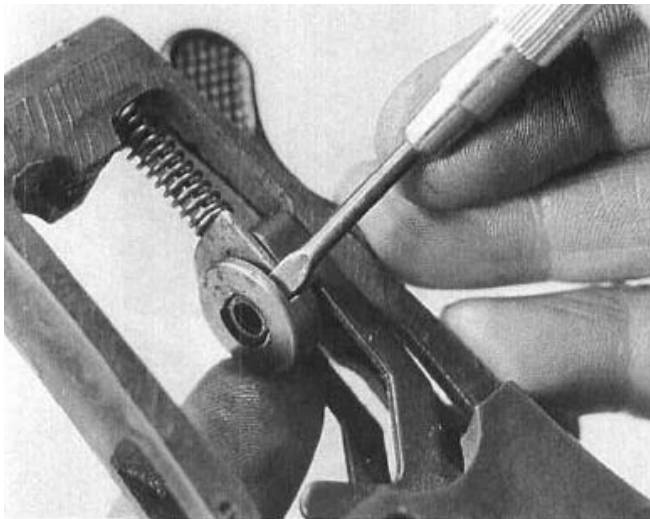
against the spring during removal to control it as it is released.



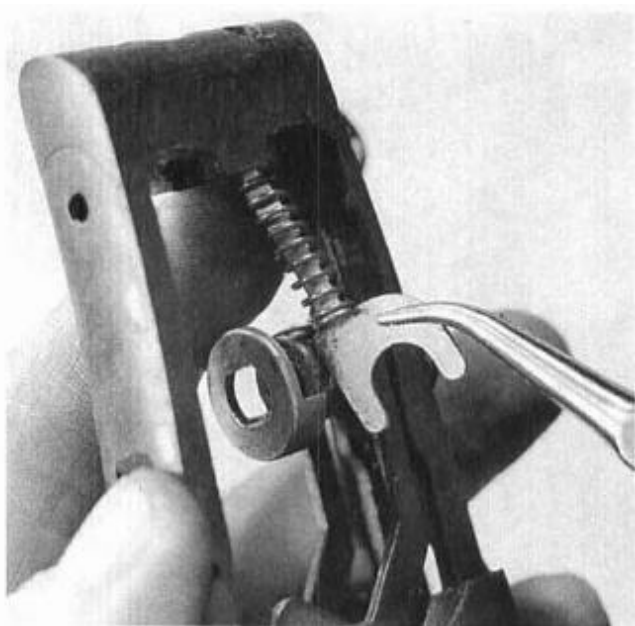
**17.** Use an offset screwdriver or an angle-tip screwdriver, as

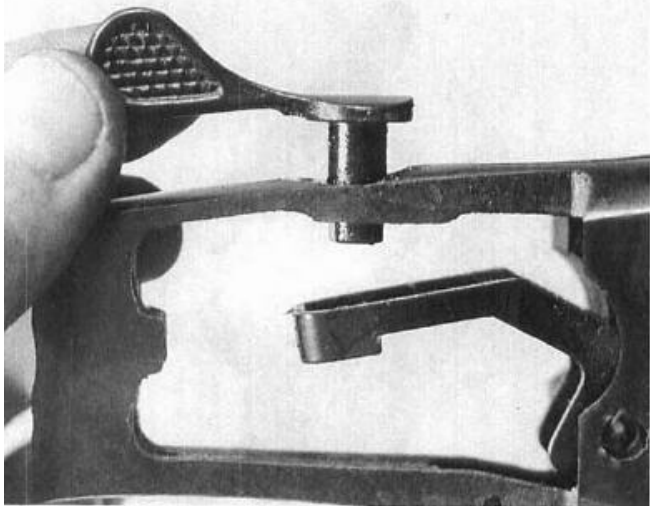
shown, to remove the barrel latch lever screw downward.

- 18.** Insert a screwdriver between the barrel latch cam sleeve and the receiver, and pry the sleeve gently downward, off the latch lever shaft.



**19.** When the cam sleeve has moved enough to allow it, grip the lever spring fork with sharp-nosed pliers and move the fork and spring toward the side for removal.





**20.** Remove the cam sleeve downward, and take off the barrel latch lever upward.

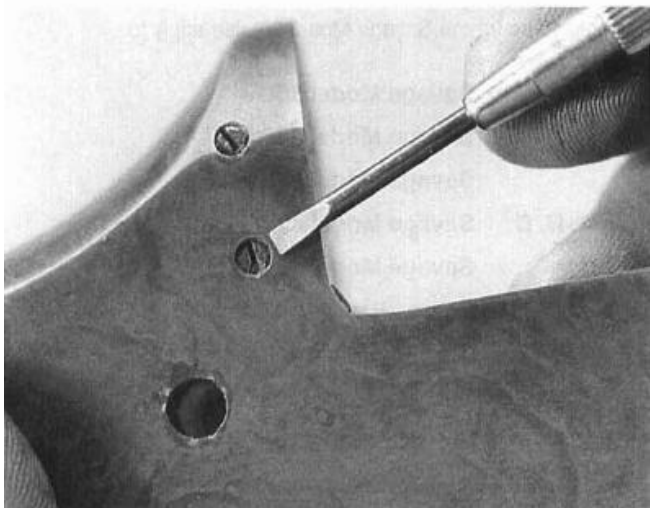


**21.** Drift out the barrel latch cross pin toward the right, and remove the latch block and its attached yoke toward the rear. The block and yoke can be separated by drifting out the

cross pin, but the pin is riveted in place, and removal is not advisable in normal takedown.

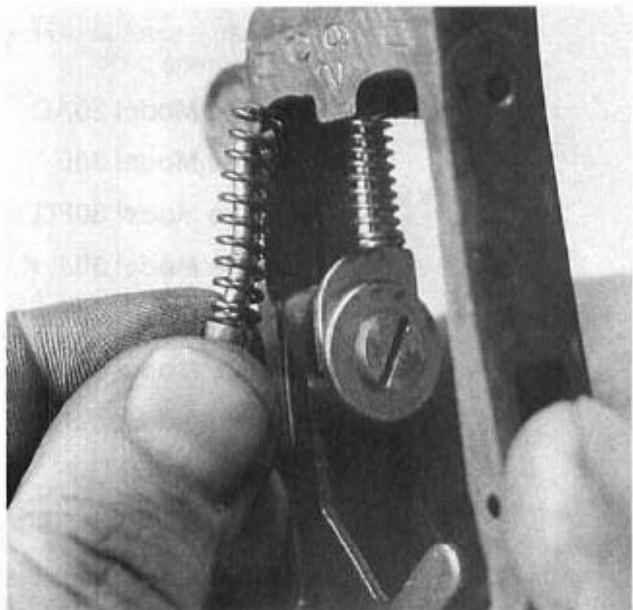
- 22.** To remove the upper and lower firing pins, back out the small screws on the right side of the receiver. Note that the upper firing pin also has a return spring.





# Reassembly Tips:

1. When replacing the two springs that power the barrel latch system, note that the spring with the fork guide goes on the right side of the receiver, and also note that the main latch spring plunger/guide is curved. The elbow of the curve must go toward the inside.





2. When replacing the hammer spring assembly, note that the longer lobe at the front of the guide goes at the top. The best way to install this assembly is to grip the front of the receiver

in a padded vise, pointing downward, and use a specially-ground vise-grip plier to guide the spring base into place. There is no really easy way to do it.



3. When replacing the trigger and

its spring in the receiver, use a slave pin to hold the spring in place while the trigger is inserted. Note that the short end of the spring lies in the trigger, and the longer end bears on the frame.

# **Savage Model 30**





## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Savage Model 30 also apply to the following guns:

**Savage Model 30AC**

**Savage Model 30E**

**Savage Model 30FG**

**Savage Model 305, K, T, Series A,**

**B, C**

**Savage Model 30 Slug**

**Savage Model 30AC Takedown**

**Springfield Model 67**

**Stevens Model 67**

**Stevens Model 77-SC**

**Savage Model 30D**

**Savage Model 30F**

**Savage Model 30H**

**Savage Model 30L**

**Savage Model 30T**

**Sears "Ranger" Model 40N**

**Springfield Model 77**

**Stevens Model 77**

**Stevens Model 79-VR**

**Data:** Savage Model 30

**Origin:** United States

**Manufacturer:** Savage Arms  
Company  
Westfield,  
Massachusetts

**Gauges:** 12,20, and 410

**Magazine  
capacity:** 4 rounds (3 in  
410)

**Overall** 47-3/4 inches

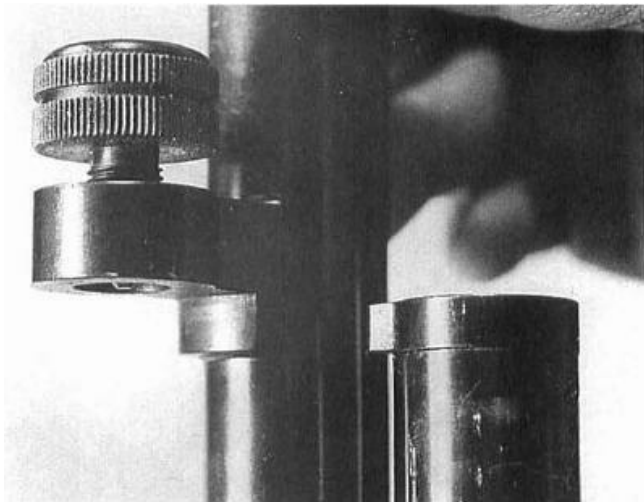
<b>length:</b>	(with 28-inch barrel)
<b>Barrel length:</b>	26 to 30 inches
<b>Weight:</b>	6 1/4 to 7 pounds

When it was introduced in 1958, the Model was offered in 12-gauge only, but the other chamberings were soon added. For a time, it was even available in a left-hand version. A number of sub-models have been made over the years, with letter suffixes denoting special

features. Mechanically, the Springfield Model 67 and Model 77 guns are very similar, but there is some variation in the shape of certain parts. The gun was made under the Stevens and Springfield names until 1989.

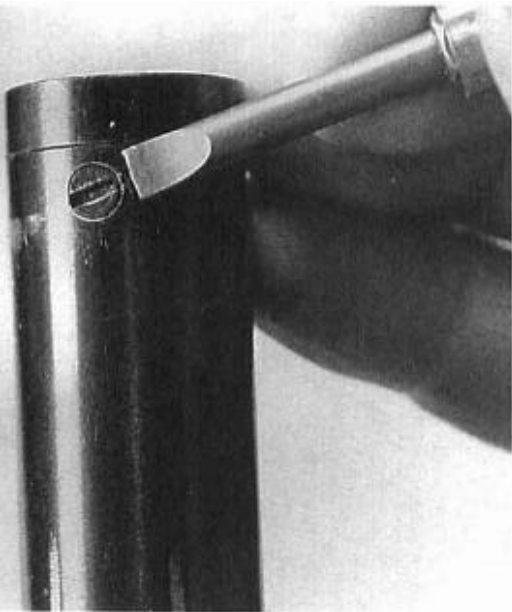
# Disassembly:

1. Open the action, and unscrew the takedown knob at the front of the forend piece until it stops. Turn the barrel clockwise (front view) until it stops, then remove the barrel toward the front. The takedown knob can be removed, if necessary, by taking off the C-clip at the rear, inside the barrel loop.



2. Removal of the small vertical screw at the front of the magazine tube will allow removal of the magazine end piece, magazine spring, and follower toward the front.

Caution; The spring is under tension, so control it and ease it out.







3. Do not attempt to disassemble the receiver components without first removing the stock. Take off the buttplate, and use a B-Square stock tool or a long-shanked screwdriver

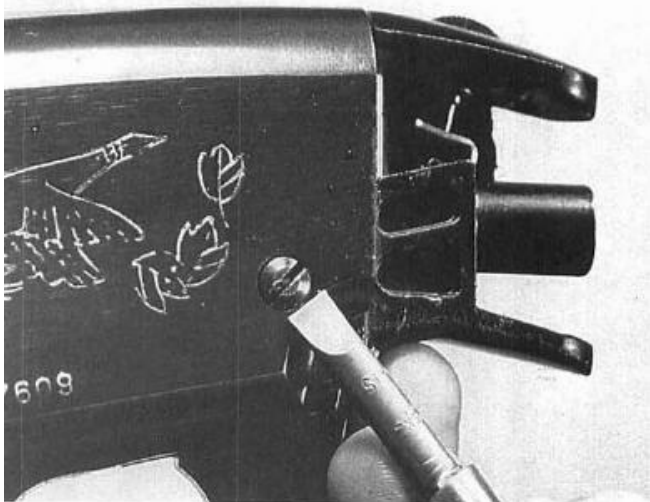
to back out and remove the stock bolt, lock washer, and washer. Take off the stock toward the rear.



**4.** Drift out the cross pin above the

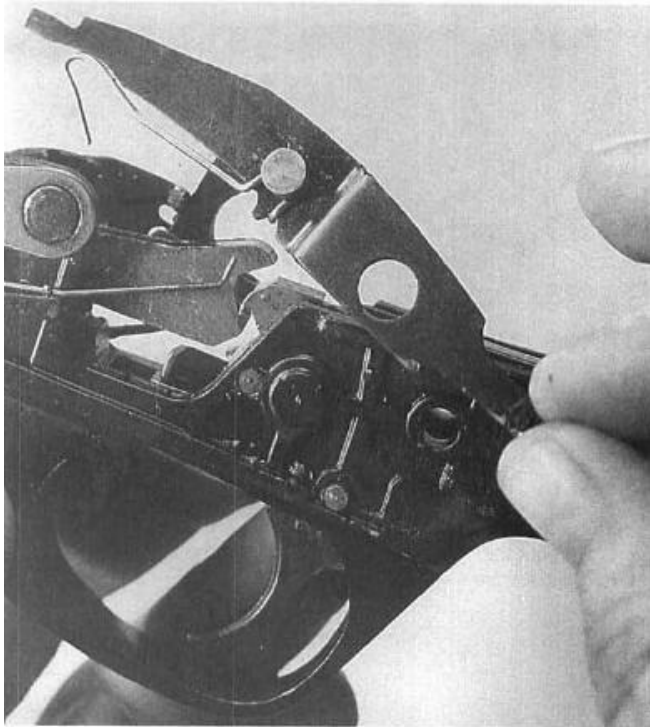
front of the trigger group  
toward the left.

- 5.** Remove the cross screw at the  
lower rear of the receiver.



6. Remove the trigger group toward the rear and downward.





7. Detach the slide latch from its

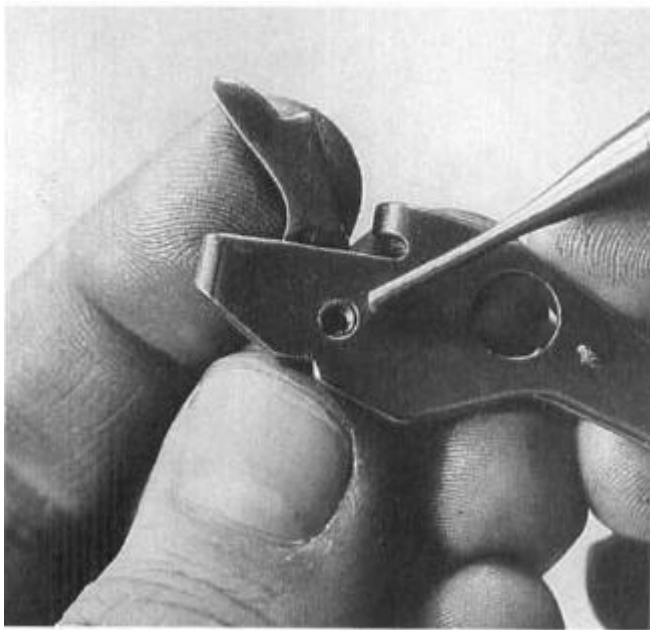
stud on the left side of the housing, and remove it upward. The slide latch release spring is held in place by a riveted stud on the left side of the latch, and is not removed unless necessary for repair.

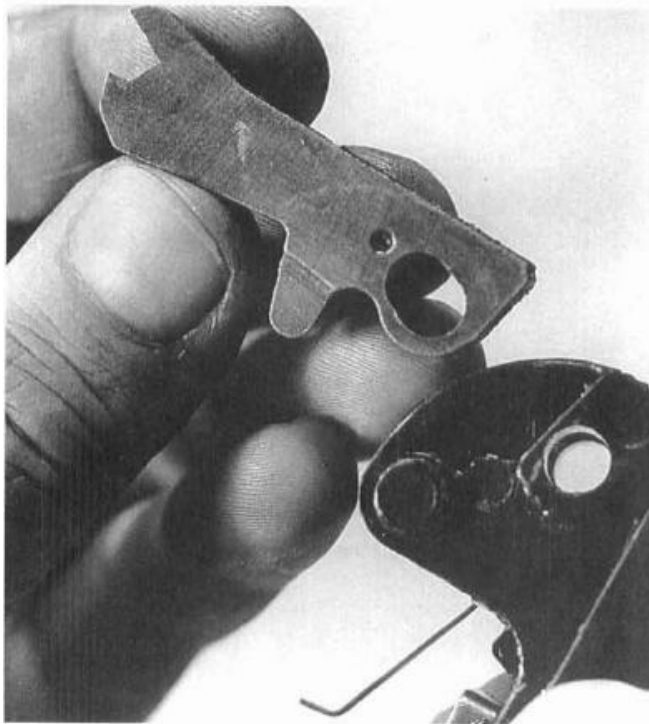
- 8.** Spring the right wing of the carrier off its pivot stud, and remove the carrier spring toward the right. Spring the left wing of the carrier off its stud, and remove the carrier.





9. The carrier dog is cross pinned on the right rear wing of the carrier, and the pin is riveted in place. If removal is necessary for repair, be sure the wing is well supported.

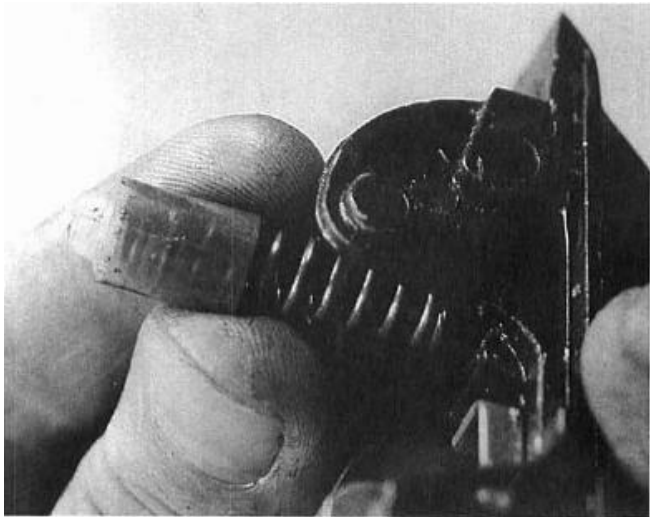




**10.** Restrain the hammer, pull the

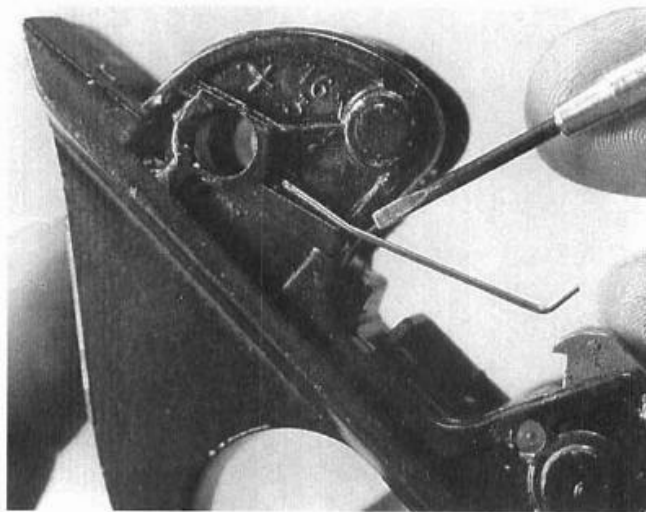
trigger, and ease the hammer down to the fired position. Drift out the hammer pivot toward the left, and remove the hammer upward.

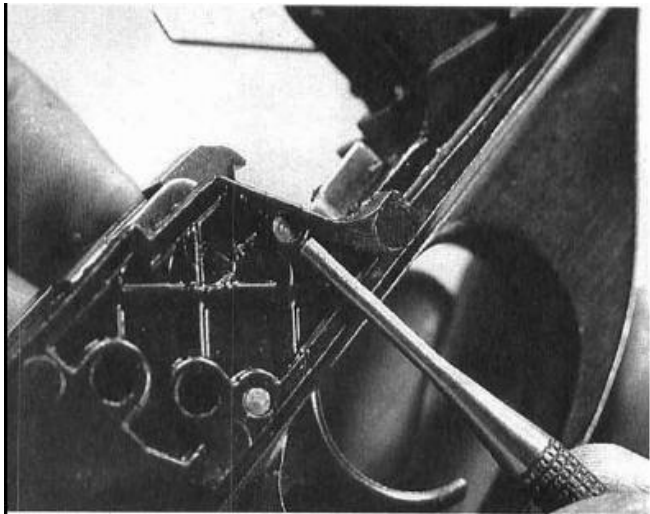
- 11.** Remove the hammer spring and plunger from their well in the trigger housing.



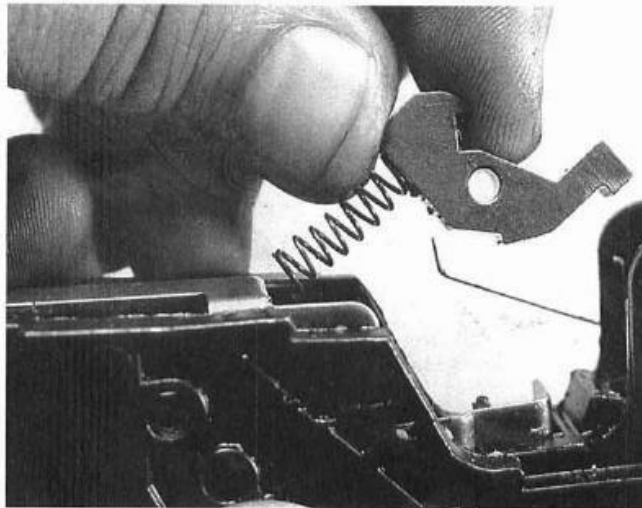
**12.** The inside tip of the slide latch spring is bent down inside the housing to retain the spring, and it should not be removed in normal disassembly. If necessary for repair,

straighten the bent tip, and  
remove the spring toward the  
left.





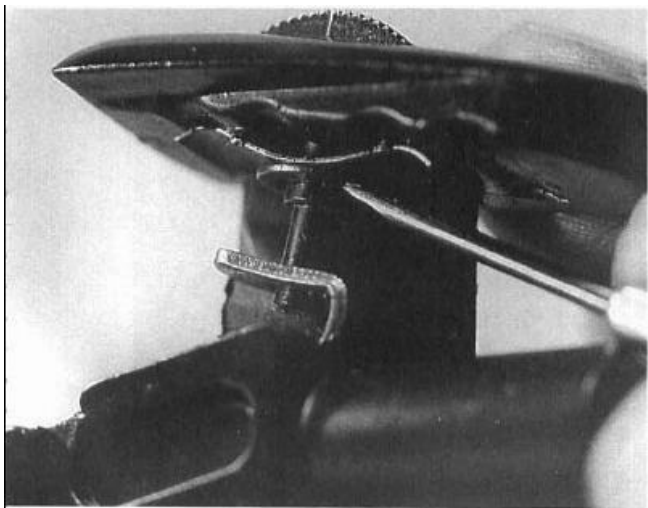
**13.** Push out the sear cross pin toward the left.



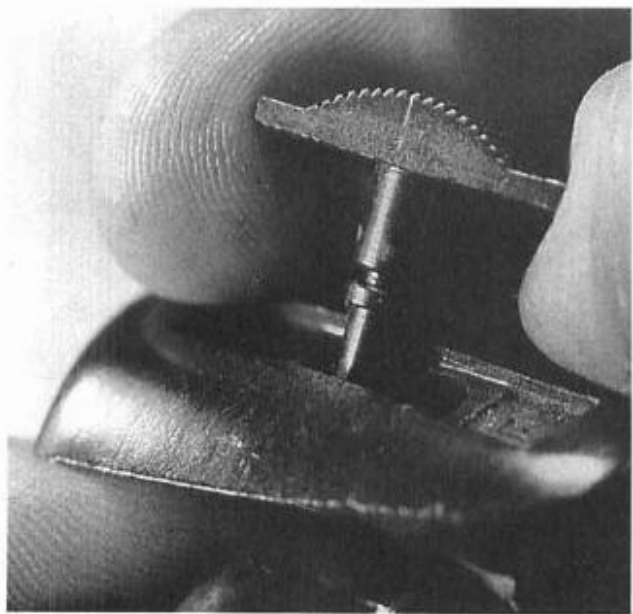
**14.** Remove the sear, and the combination sear and trigger spring, toward the front and upward.

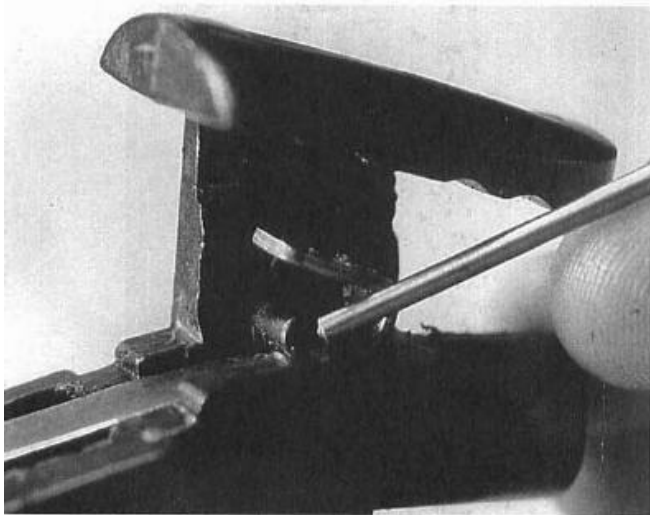


**15.** Remove the C-clip from the safety button shaft.



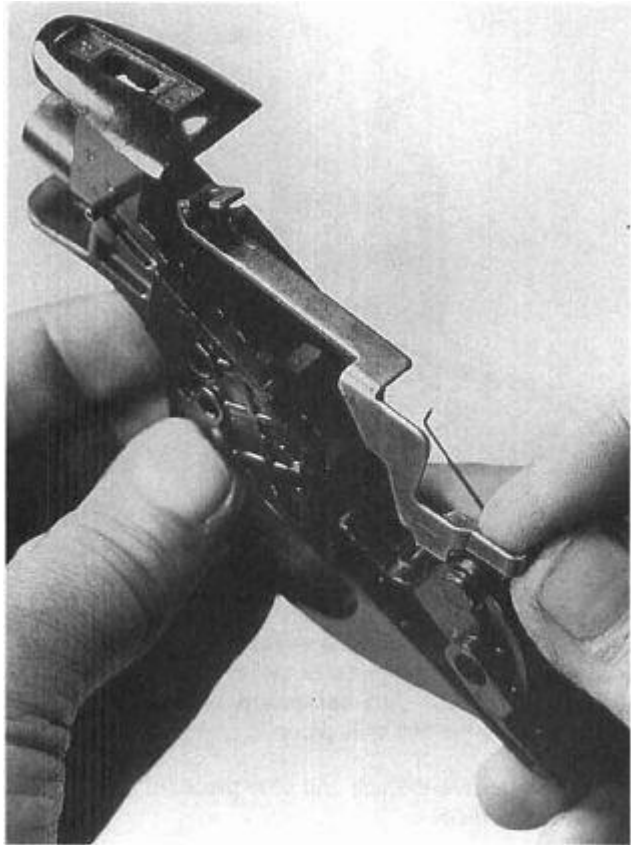
**16.** Remove the safety button upward, and take out the safety spring toward the side.





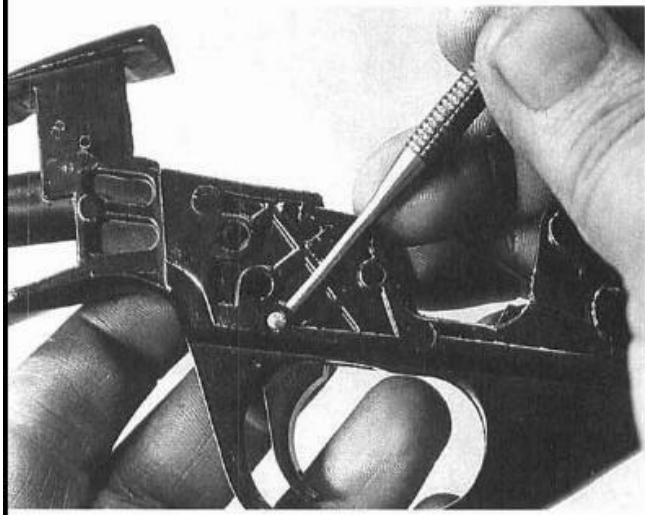
**17.** Use a roll pin punch to drift the safety bar retaining pin toward the right. It is not necessary to remove the pin, just move it over for clearance.





**18.** Remove the safety bar toward the front and upward.

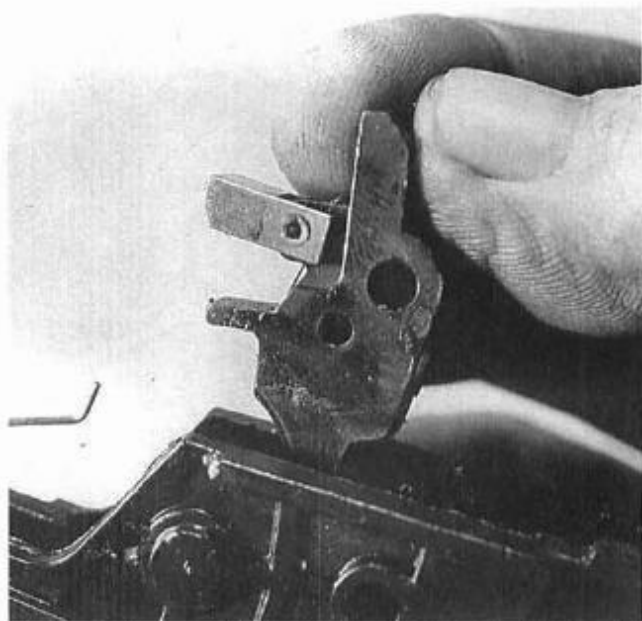
**19.** Drift out the trigger cross pin toward the left.

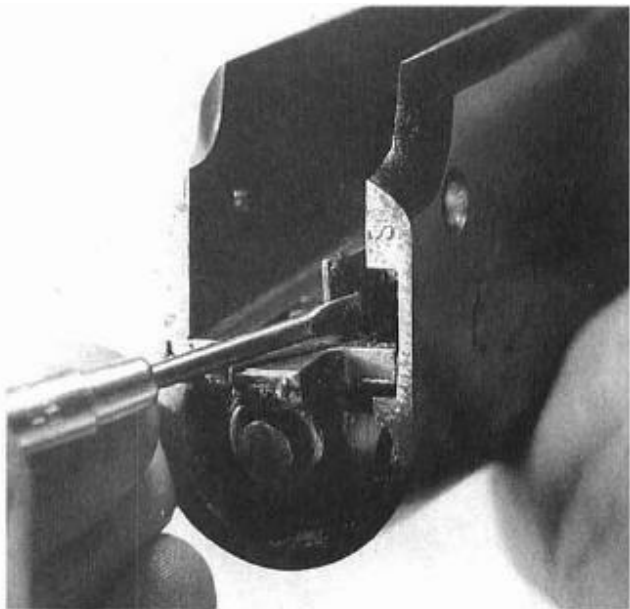


**20.** Remove the trigger assembly upward. The sear trip can be removed from the trigger by drifting out its cross pin toward the right, but the left

tip of the pin is riveted, and unless necessary for repair it should be left in place. If it is removed, take care not to deform the trip or the trigger. The trip spring will be released if the pin is removed.







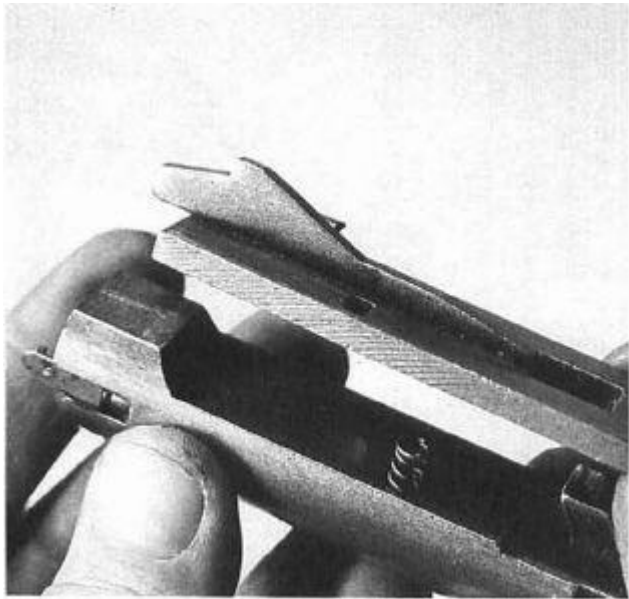
**21.** Move the bolt all the way to the rear of the receiver, and use a fingertip or tool to spring the rear tip of the action

slide bar inward, disengaging the bar from the bolt slide piece.



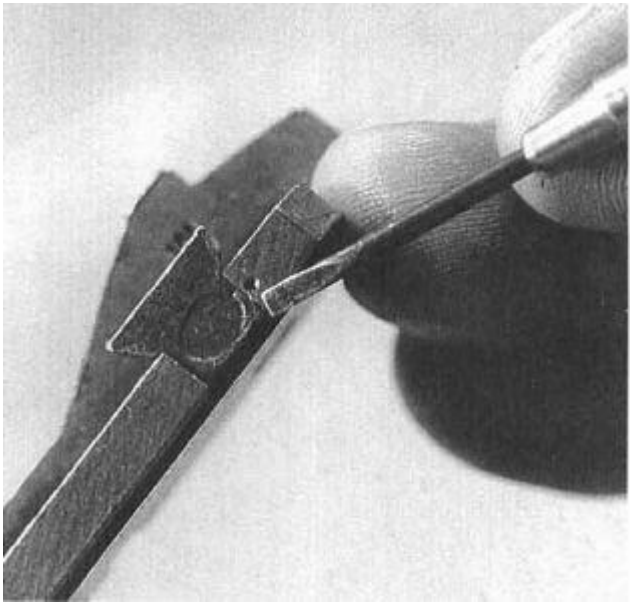
**22.** Remove the bolt and slide piece from the rear of the receiver.

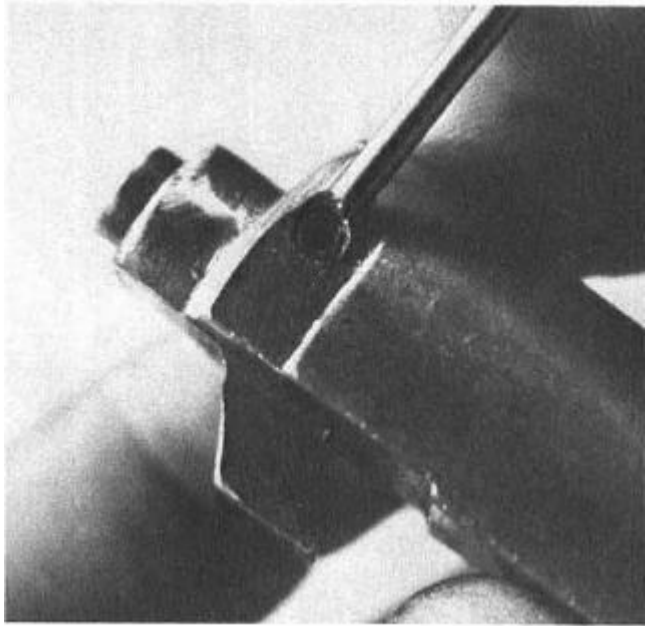
**23.** The slide piece is easily detached from the bottom of the bolt, and the tension spring is then removed from its hole on the underside of the bolt.



**24.** The bar contact lug on the slide piece is staked in place on the left side of the slide piece, and is occasionally

found to be loose, so take care that it isn't lost during disassembly. It can easily be restaked in place.

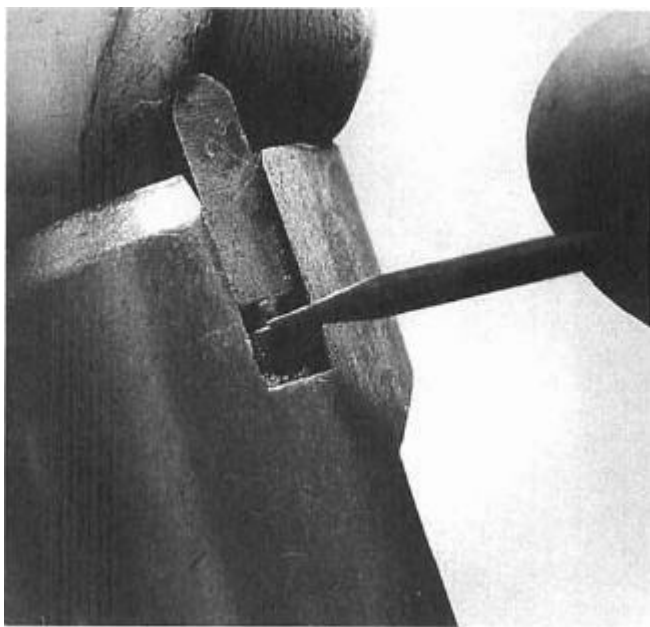




**25.** Drift out the roll cross pin at the rear of the bolt, and take out the firing pin and its return



spring toward the rear.

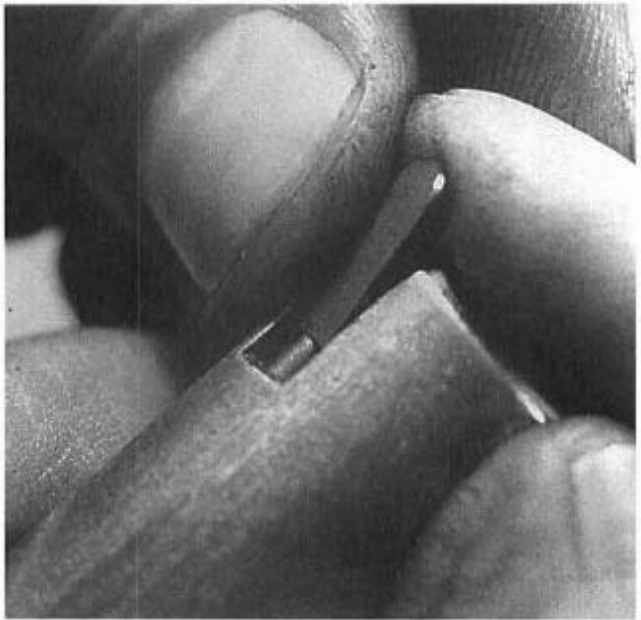


**26.** The plunger for the right extractor has a recessed

groove for insertion of a small screwdriver to depress the plunger toward the rear. The extractor is then lifted out of its recess in the bolt. Keep the plunger under control, and ease out the plunger and spring for removal toward the front.

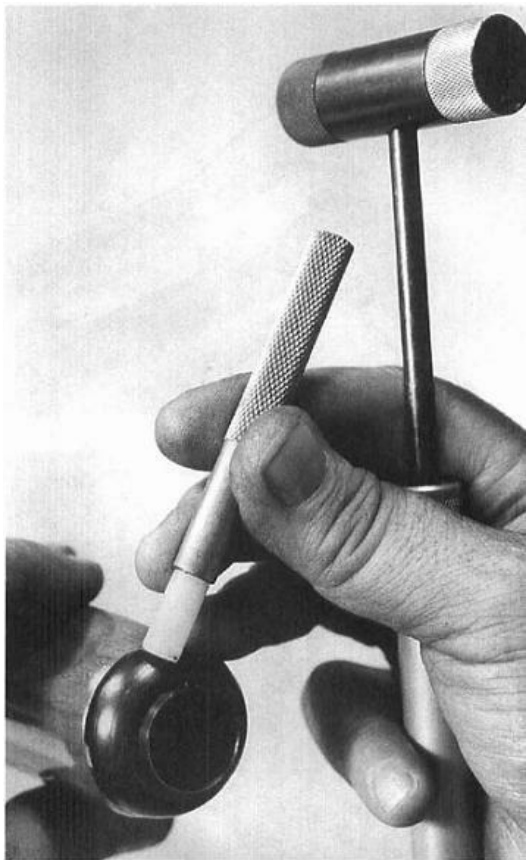
- 27.** The left extractor is simply tipped out toward the left until it snaps out of its recess. Restrain the plunger and spring, and remove them toward the front. Keep the extractors and their springs separate, as they are not

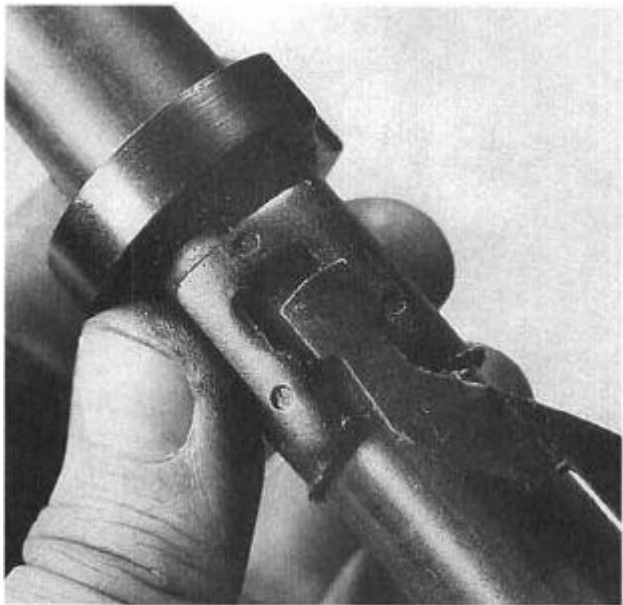
interchangeable.



**28.** There is no provision for a

special wrench on the forend cap nut. To remove it without marring, use a nylon drift punch and a small hammer to start it, as shown, then unscrew it by hand, counter-clockwise (front view). When the nut is removed, the action slide assembly can be slid out toward the rear, and the forend wood taken off toward the front.



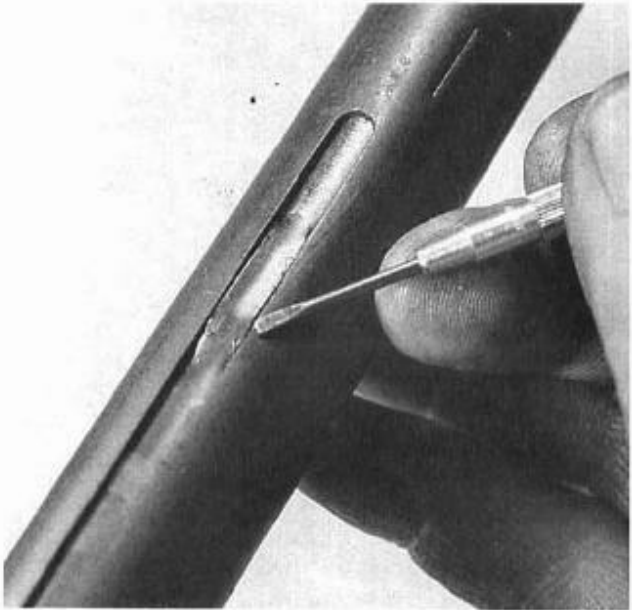


**29.** Move the rear base ring of the forend tube forward, and lift the front tip of the action slide bar out of its recess. Turn the

base ring to align its barrel clearance recess with the slide bar, and take off the bar toward the front.

**30.** The action slide tube is retained on the magazine tube by a raised welt in a lengthwise slot. If removal is necessary, the slide tube can be pushed off toward the front, springing the welt inward. In normal takedown, it is best left in place. It is also possible to unscrew the magazine tube from the receiver, taking off the slide

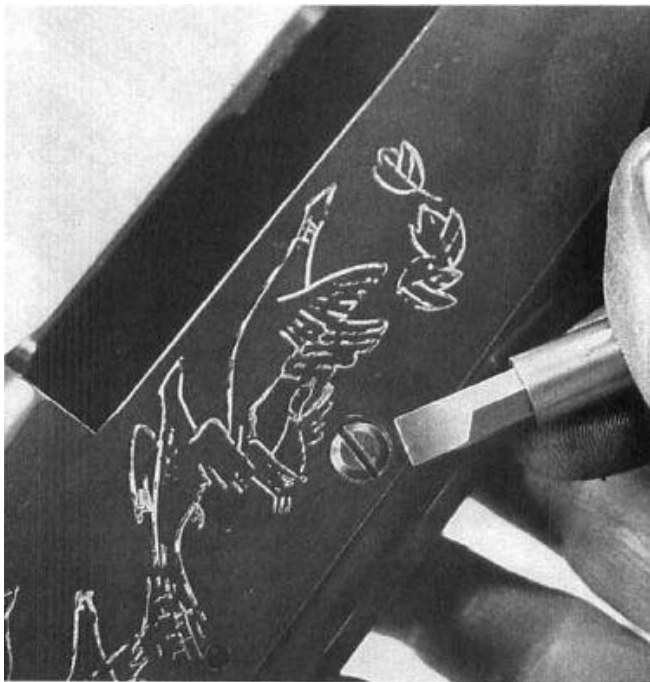
tube toward the rear. Again, it is best left in place.

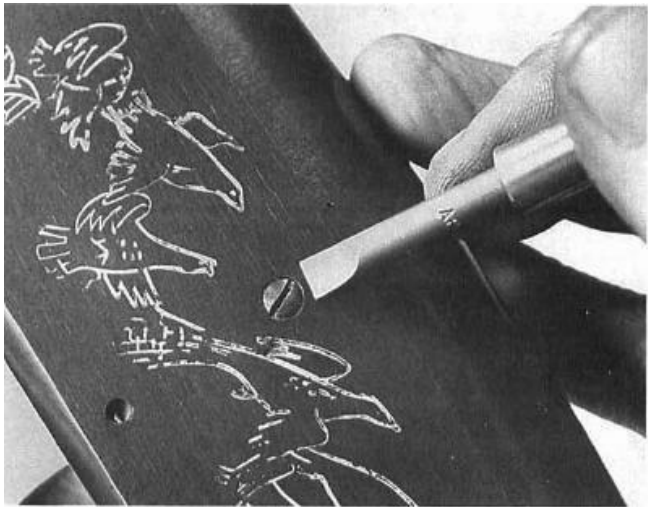


**31.** Removal of the screw on the

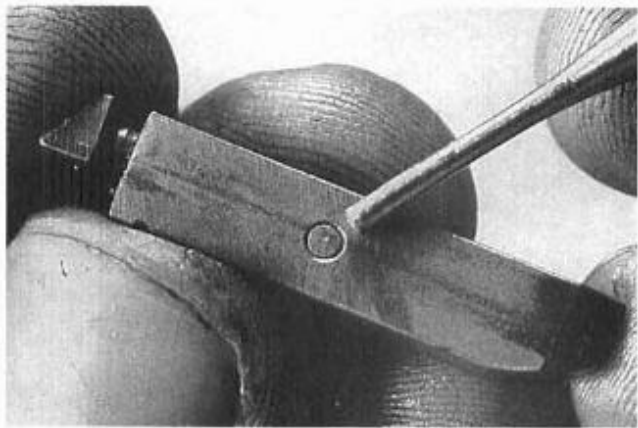


right side of the receiver, below the ejection port, will release the shell stop to be taken out inward. It will be necessary to insert a tool on the inside to stabilize the retaining nut as the screw is removed, setting the point of the tool in one of the notches provided in the nut. A twin-pointed offset screwdriver is useful in this operation, contacting both of the notches on the nut.





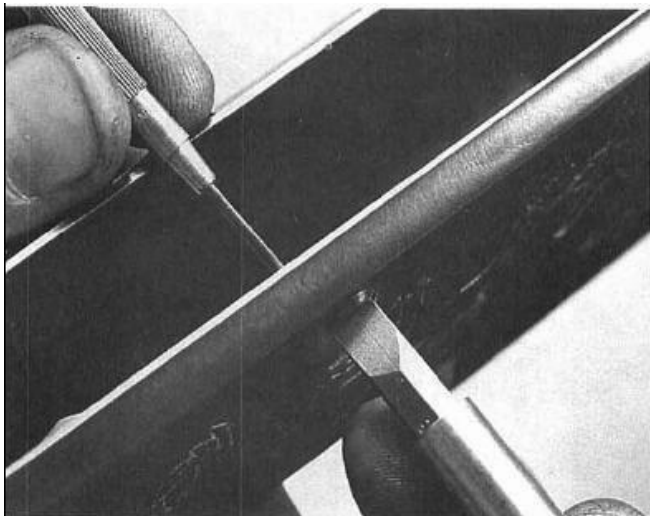
**32.** Removal of the small screw on the left side of the receiver near the top will release the ejector assembly to be taken out from inside the receiver.



**33.** Drifting out the small pin in the ejector housing will allow removal of the ejector plunger and spring toward the front.

# Reassembly Tips:

1. When replacing the shell stop screw and nut, it will be necessary to insert a tool inside the receiver to contact the nut while tightening the screw. As mentioned in step 31, a twin-pointed offset screwdriver is ideal for this operation.

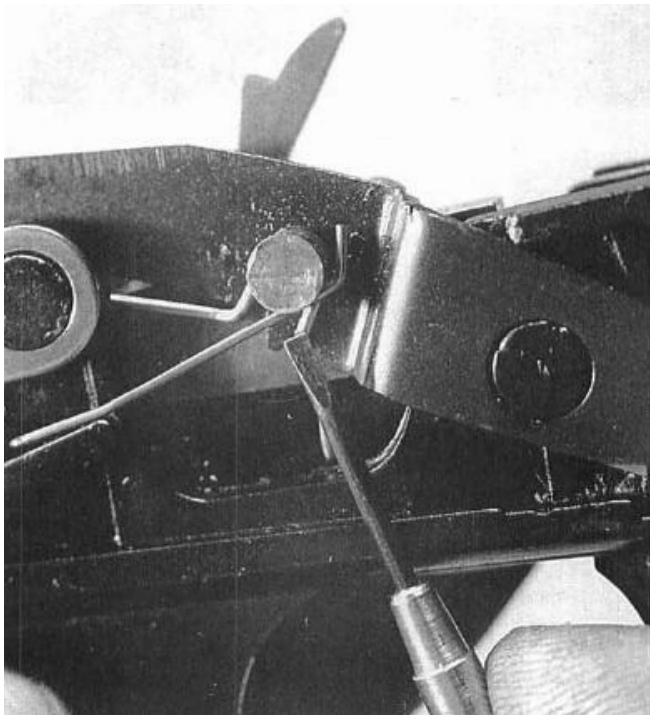


2. When replacing the hammer pivot, note that the rebated section of the pivot must go on the left side, to clear the slide latch. Also, be sure the lower front step of the hammer is

above its ledge in the housing before the pivot is replaced. If the hammer is tilted forward when the pivot is installed, it cannot be cocked.







**3.** When replacing the slide latch,  
be sure the latch spring

engages its groove in the side stud of the latch, as shown.

**Savage-Stevens**

**Mode1 3l1**



## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Savage-Stevens Model 311 also apply to the following guns:

**Fox Model B-C**

**Fox Model B-D-B-E Series B,  
Series F**

**Sears "Ranger" 400**

**Sears Model 5100**

**Stevens Model 530**

**Stevens Model 530M**

**Stevens Model 311R**

**Stevens/Springfield Model 511**

**Stevens Model 311A, C, D, Series  
F, Series H**

**Fox Model BST**

**Savage Model 5000**

**Sears Model 101.7**

**Stevens Model 5100**

**Stevens Model 530A**

**Stevens Model 530ST**

**Stevens/Springfield Model 311**

**Stevens/Springfield Model 511A**

**Data:** Savage-Stevens  
Model 311

**Origin:** United States  
Savage Arms

**Manufacturer:** Company  
Westfield,

<b>Gauges:</b>	Massachusetts, 12, 16, 20, and 410
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<b>Overall length:</b>	44-1/2 inches
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Barrel length:	26 to 30 inches
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Weight:	7 to 8 pounds
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The venerable Model 311 double began as a true Stevens gun in 1931, and was wisely retained in the line when the Savage company obtained the Stevens

firm in 1936. The Model 311 is a classic example of the simple, solid and reliable American double gun. As with most so-called "hammerless" guns, it has pivoting internal hammers. While there have been some minor changes during its nearly 50 years of production, the basic mechanism is the same, and the instructions can be applied to all Model 311 guns, early or late. Some models of the Fox double, and the Springfield Model 511, have internal mechanisms that are practically the same.



# Disassembly:

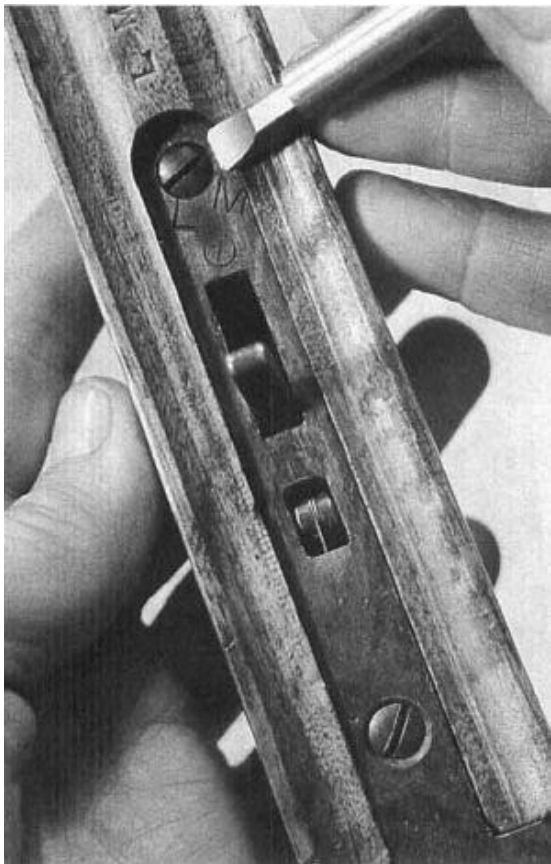
1. Pull the front of the forend away from the barrels until its spring-catch releases, and remove the forend downward and toward the front.



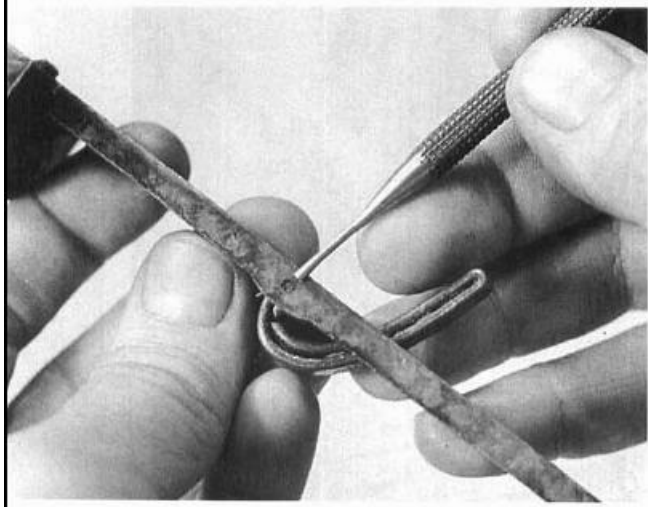
2. Operate the barrel latch, and tip the barrels down beyond their normal opened position. Remove the barrels upward.



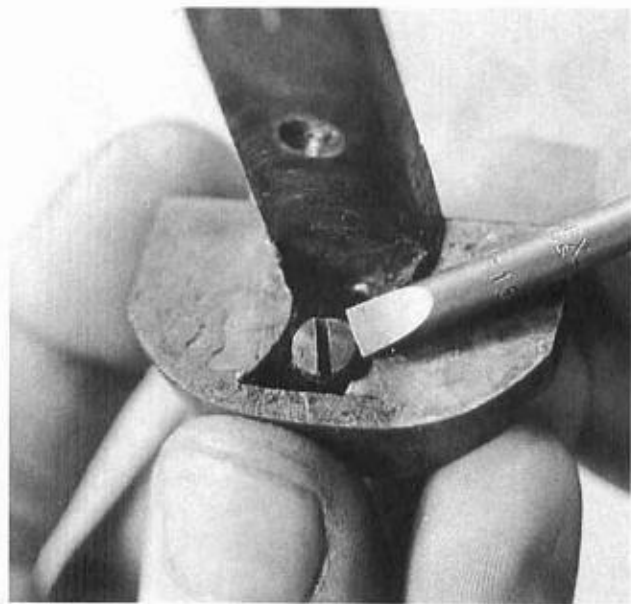
3. Remove the two screws on the inside of the forend, and remove the forend iron upward.



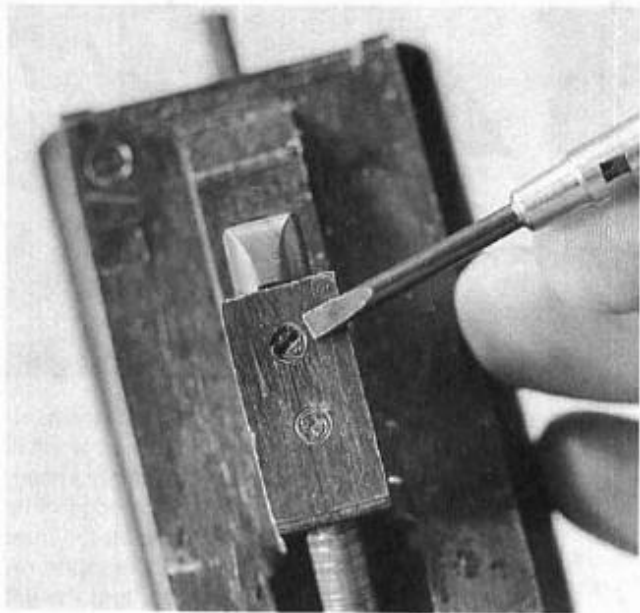
4. The heavy forend latch spring and its small round-wire positioning spring are retained by a cross pin. The smaller spring is under slight tension, so restrain it as the pin is removed.



- 5.** Remove the screw on the inside at the rear of the forend iron, and take off the ejector block toward the rear.

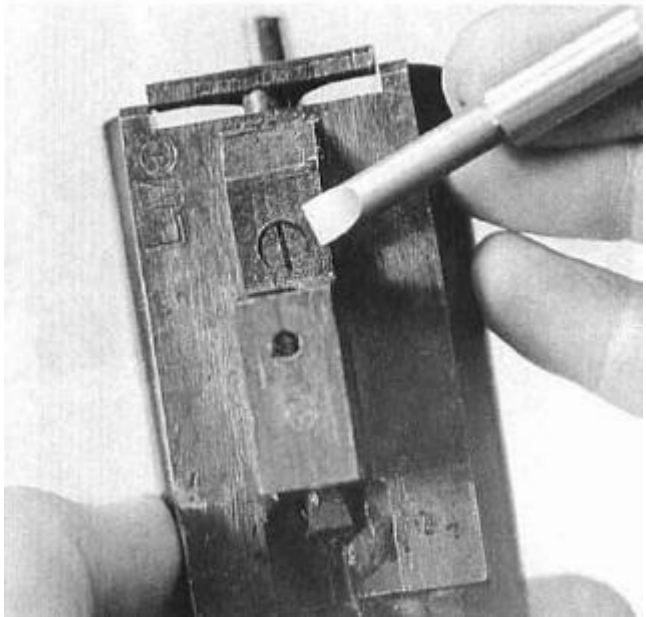






**6.** Remove the small screw on the underside of the barrel underlug, and take out the

cocking plunger and its spring  
toward the rear.



7. Remove the large screw on the underside of the barrel underlug, and take out the ejector toward the rear.
  
8. Insert a tool in the slot at the center of the breech face, and depress the barrel latch detent, releasing the latch lever to return to center.



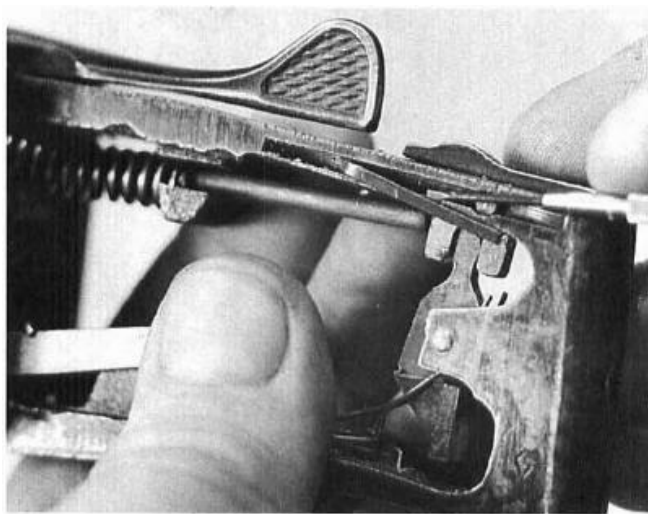
9. Back out the screw in the rear tail of the trigger guard, unscrew the guard from the receiver, and remove it. Note that on some Model 311 guns,

the front of the guard is also retained by a separate screw, and an angle-tip or offset screwdriver will be required for removal.





- 10.** Remove the buttplate, and use a B-Square stock tool or a long-shanked screwdriver to back out the stock bolt. Remove the bolt, its washer, and the stock toward the rear.



**11.** Pull the triggers to trip the sears, allowing the hammers to fall to the fired position. Insert a small screwdriver beneath the tail of the safety spring, from the rear, and lift it just over the edge of its recess. Turn the tail downward, and lift the front cross arm of the spring out of its hole in the receiver. After the spring is removed, turn the left side of the receiver downward over the hand, and tap it until the safety positioning and retaining plunger drops out.

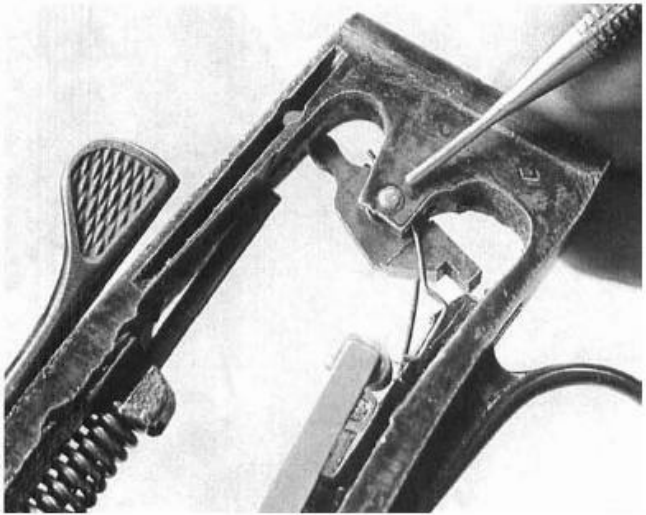


**12.** Remove the safety button upward.



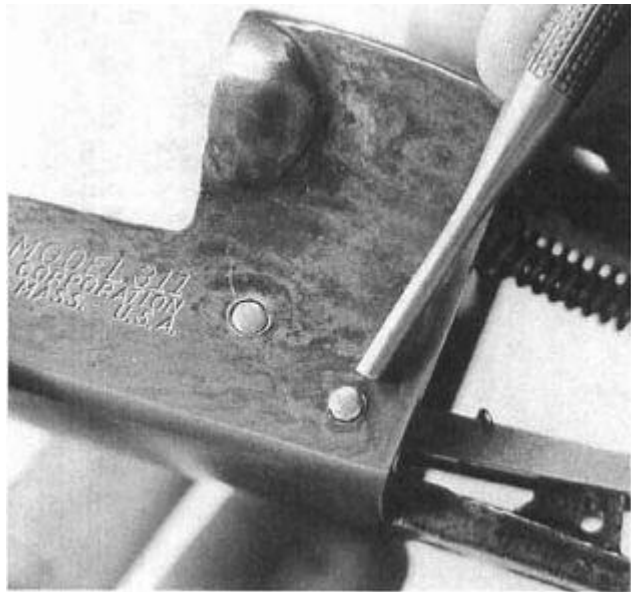
**13.** Drift out the cross pin at the rear of the receiver. This will release the safety lever and the

right and left trigger springs for removal. The springs are under some tension, so restrain them during removal.





**14.** Drift out the trigger cross pin, and remove the two triggers downward.



- 15.** Drift out the sear cross pin, and remove the sears and their double spring toward the rear. The sear spring is under some

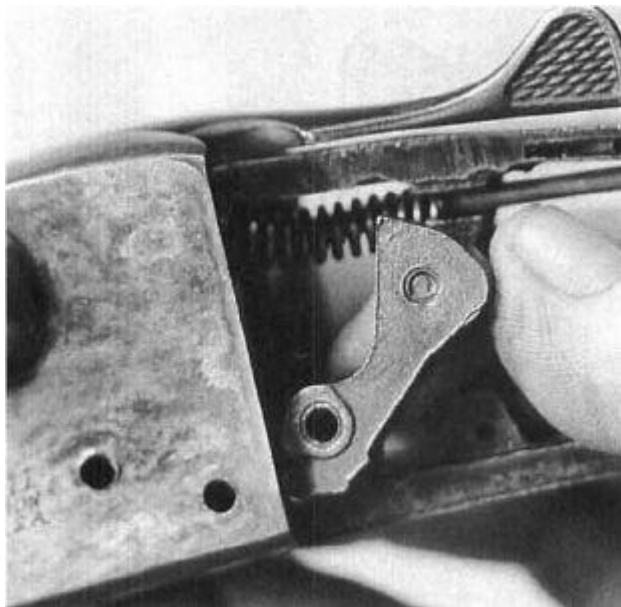
tension, and will tend to angle the cross pin after one end clears the receiver wall. Exert pressure on one sear to keep the pin straight during removal. Another method is to unhook both arms of the spring from the sears before removal of the pin.

- 16.** Drift out the main cross pin that retains both hammers and the cocking lever. This should be done in stages, taking out each of the three parts as the pin clears them. Caution: The hammer springs are quite

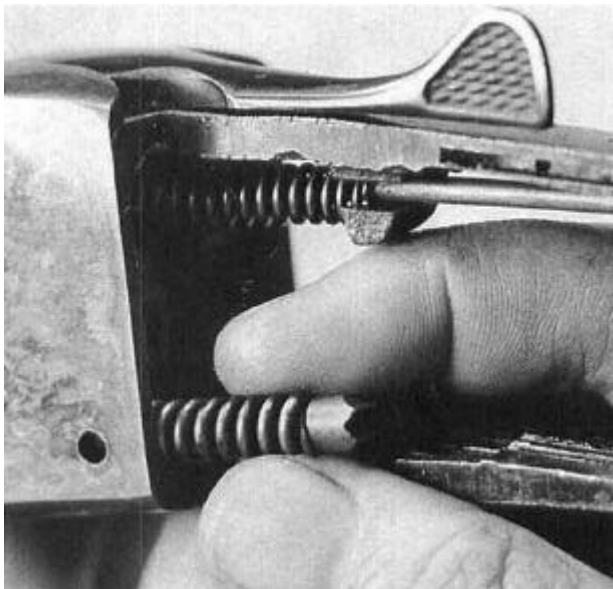
powerful, and are under tension, so keep the hammers under control.



**17.** Remove the hammers toward the rear.







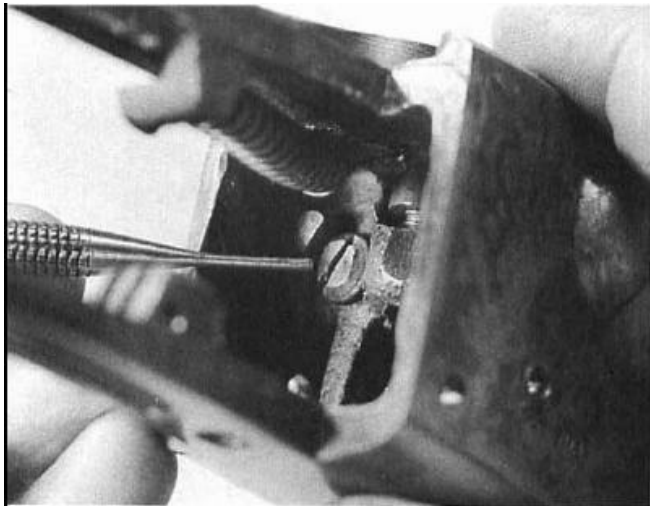
**18.** Remove the hammer springs and plungers toward the rear.



**19.** After both hammers are removed, the cocking lever can be moved out toward the rear. During removal, take care that the small return spring at the rear of the

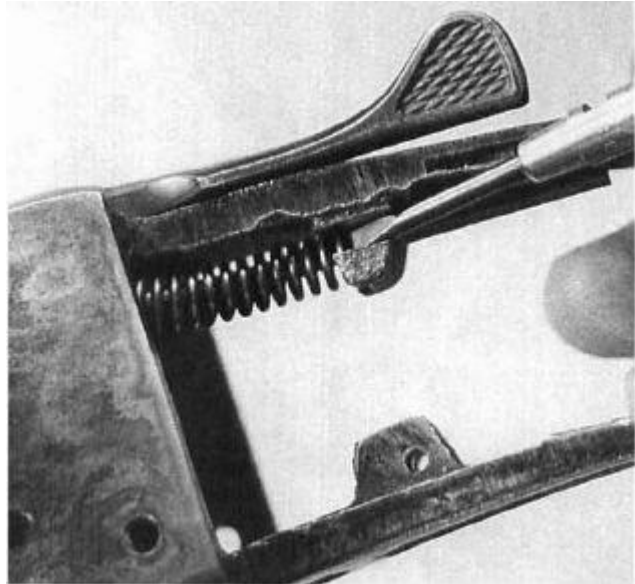
cocking lever is not deformed. Drifting out the cross pin will allow removal of the spring.

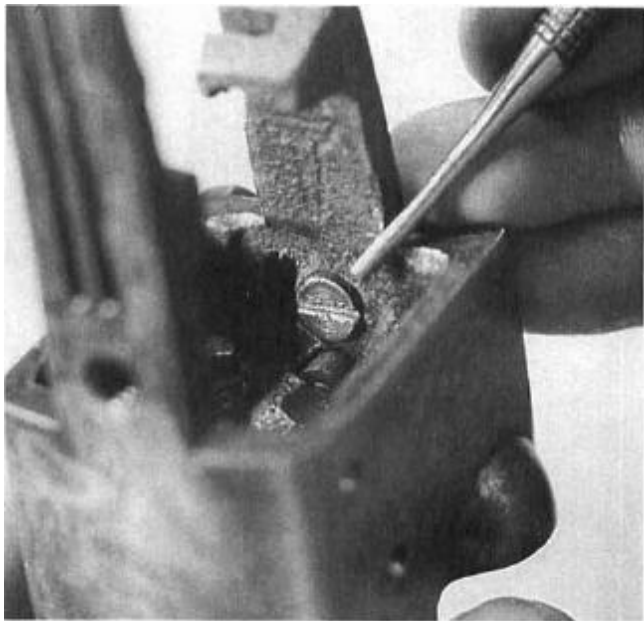
- 20.** The firing pins and their return springs are retained by large screws beside each firing pin, inside the receiver. The screws, firing pins, and the springs are taken out toward the rear.



**21.** Insert a small screwdriver on the left side to lever the barrel latch spring forward until it can be pushed toward the left, out of its seat in the upper tang of the receiver. Caution: This

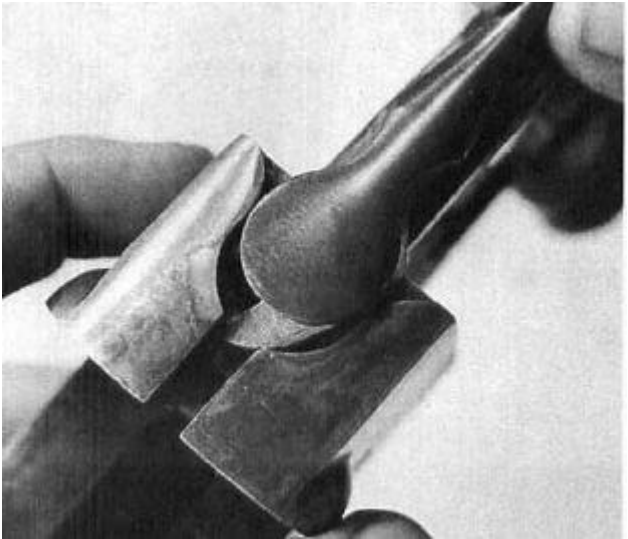
spring is quite strong, and is under tension, so control it. Also, do not attempt to move this assembly by pushing on the rear tail of the spring guide, as it is easily deformed. After the spring is released, move the spring and guide downward, then remove them toward the rear.





**22.** The barrel latch lever is retained on the inside of the receiver by a vertical screw.

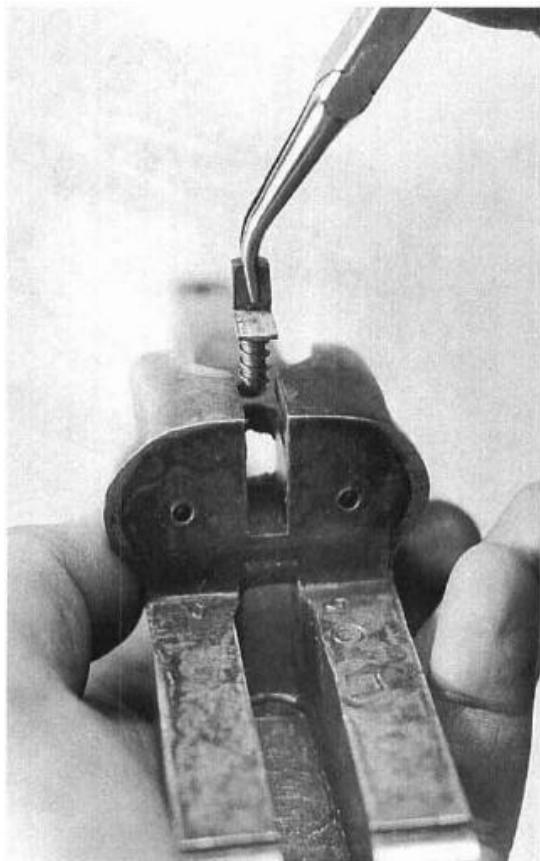
There is no direct access, so an offset screwdriver or one with an angled tip must be used. Remove the screw downward.





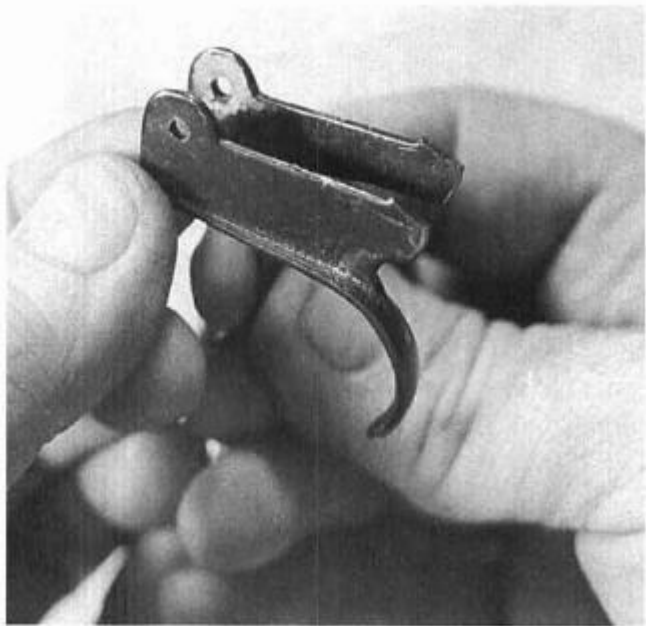
**23.** Remove the barrel latch lever toward the rear.

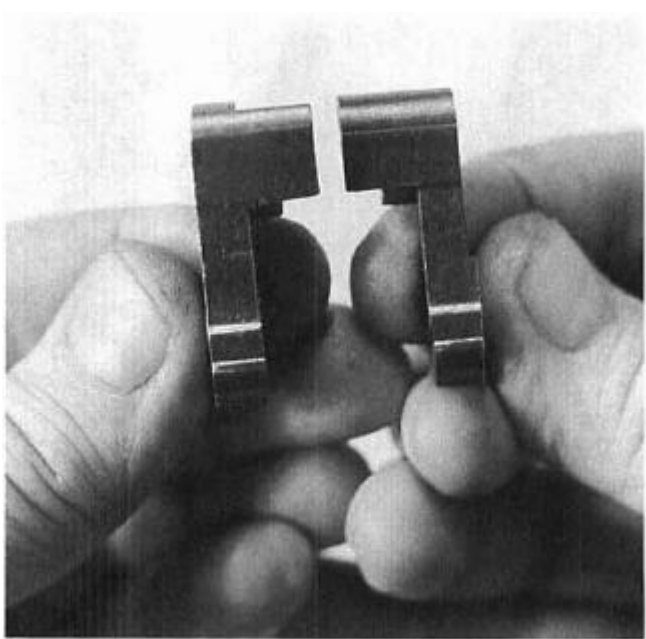
**24.** Lift the latch lever detent and its spring out of its recess in the receiver.



# Reassembly Tips:

1. When replacing the triggers in the receiver, note that the rear trigger goes on the left side, the front trigger on the right, as shown.

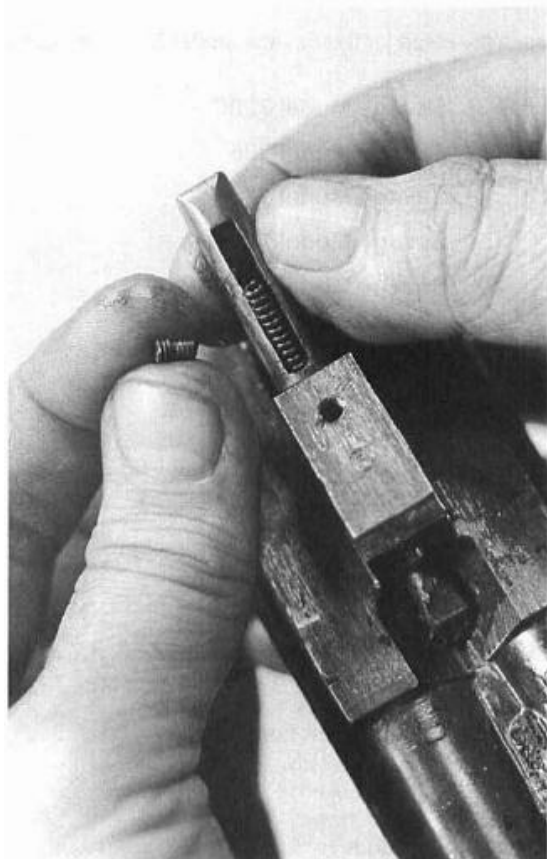




2. When replacing the hammers in the receiver, note that the cocking lobes of each hammer

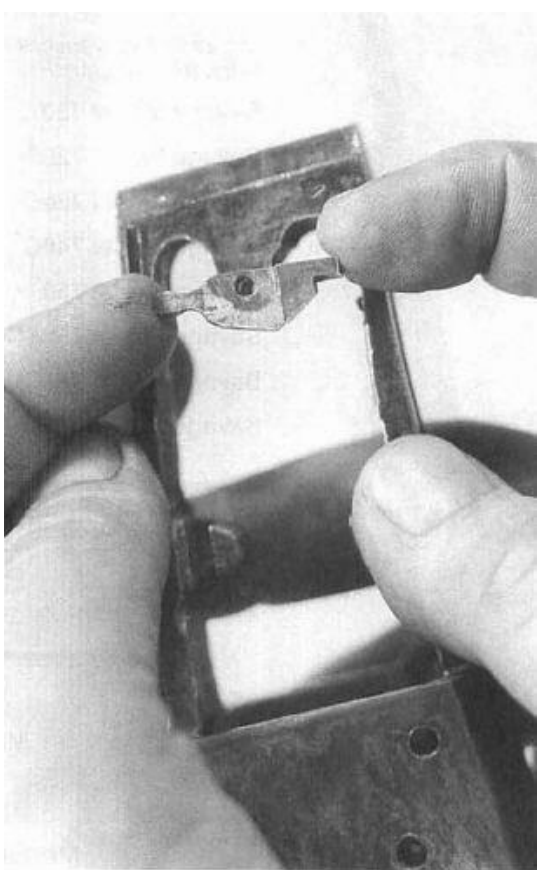
must go toward the center, as shown.

- 3.** When replacing the cocking plunger in the barrel underlug, be sure it is fully inserted before putting in the retaining screw, to insure that the screw nose enters behind the coil spring.



4. When replacing the safety lever at the rear of the receiver, be sure that it is installed with its pivot hole at the rear, and its lower clearance cut toward the front, as shown.





When installing the hammers, be sure the recess at the rear tip of the hammer spring plungers engages the lobe at the bottom of each hammer. Grip the forward portion of the receiver in a padded vise, and use a tool to press each hammer forward until the hammer hole aligns with the cross pin hole. If a hammer is installed and will not cock, this indicates that the plunger has slipped off the lobe during installation. Check this by lifting the cocking lever with a tool after the hammers are installed.

# **Savage Model 755A**



## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Savage Model 755A also apply to the following guns:

**Savage Model 720**

**Savage Model 720P**

**Savage Model 726C**

**Savage Model 740C**

**Savage Model 750**

**Savage Model 750SC**

**Savage Model 755C**

**Savage Model 775A**

**Savage Model 720C**

**Savage Model 726**

**Savage Model 726P**

**Savage Model 745**

**Savage Model 750AC**

**Savage Model 755**

**Savage Model 775**

**Savage Model 775SC**

**Data:** Savage Model  
755A

**Origin:** United States

**Manufacturer:** Savage Arms  
Company,  
Chicoppe Falls,  
Massachusetts

**Gauges:** 12 and 16

**Magazine  
capacity:** 4 rounds

**Overall  
length:** 46-1/2 inches

**Barrel length:** 26 to 30 inches

**Weight:            6 to 8 1/2 pounds**

Although the Savage autoloaders relied greatly on the basic Browning long-recoil design made famous by the Auto-5, there were some elements that were entirely different. The line began in 1930 with the Model 720, which even had the appearance of a Browning. By 1949, when the Model 755 arrived, some of the components, such as the trigger group, were pure Savage. The

Model 720, 775, and other variants listed above are mechanically much the same as the Model 755, and the instructions will apply. The Model 755 faded from the scene in 1956.

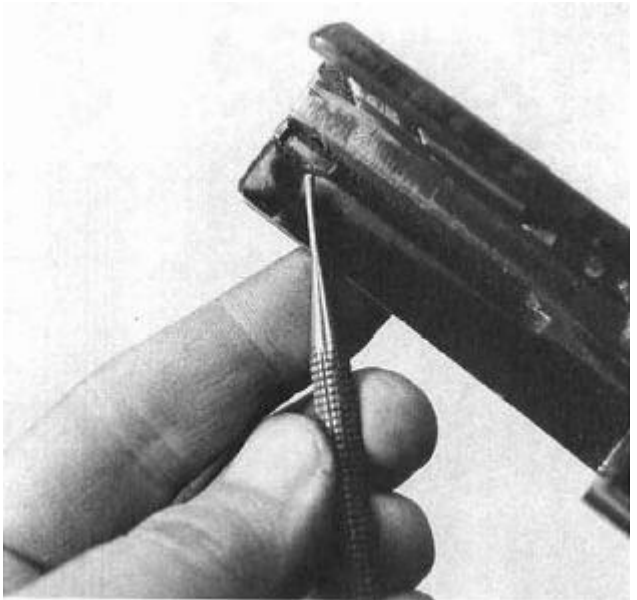
- 1.** Pull back the operating handle to lock the bolt open, and set the safety in the on-safe position. Depress the barrel slightly toward the rear, and unscrew and remove the magazine end cap. Take off the forend and barrel toward the front.





2. The ejector is mounted in a slot at the left rear of the barrel extension, and its post is riveted on the outside of the

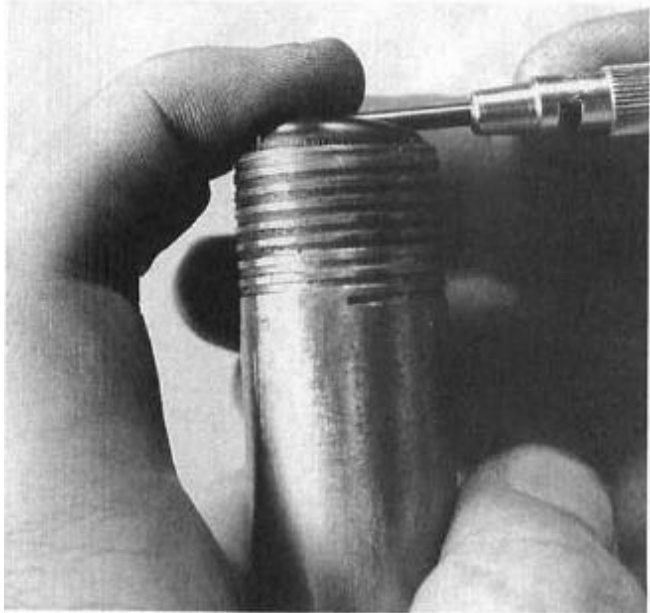
extension. If removal is necessary for repair, it is drifted out toward the right.





3. Remove the friction piece and the compression ring toward the front. The circular friction piece spring is easily removed

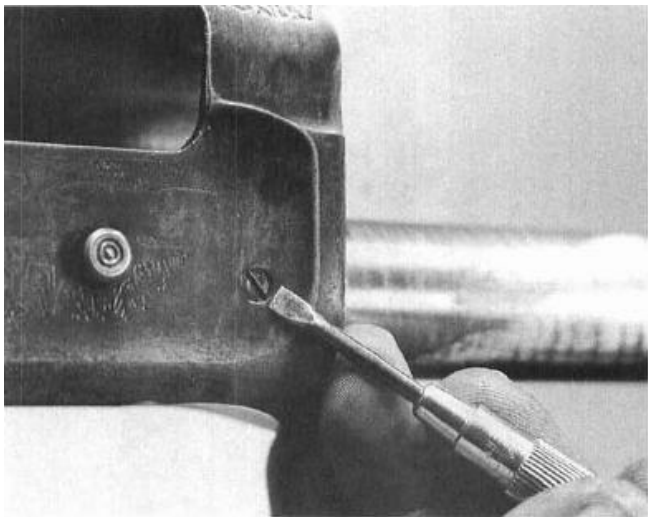
from the friction piece. If the gun has been used with light loads, the compression ring may be found, reversed, at the rear of the recoil spring. Take off the recoil spring toward the front.



4. Insert a screwdriver in the open end of the magazine spring retainer, and pry it outward,

moving the screwdriver to raise it equally around its edge. Caution: The magazine spring will be released, so control it and ease it out. Remove the spring and follower toward the front.

- 5.** Removal of the small screw near the front on the right side of the receiver will allow the magazine tube to be unscrewed from the front of the receiver, if this is necessary for repair. In normal takedown, it is best left in place.



6. Restrain the bolt, depress the carrier latch button, and ease the bolt forward to closed position. Remove the buttplate, and use a large

screwdriver to back out the stock retaining bolt. Remove the buttstock toward the rear, and take off the spacer ring at the rear of the receiver.







7. Remove the lock screw and the

main screw at the front of the trigger housing on the left side. The main "screw" is actually a pin, and is simply pushed out toward the left.



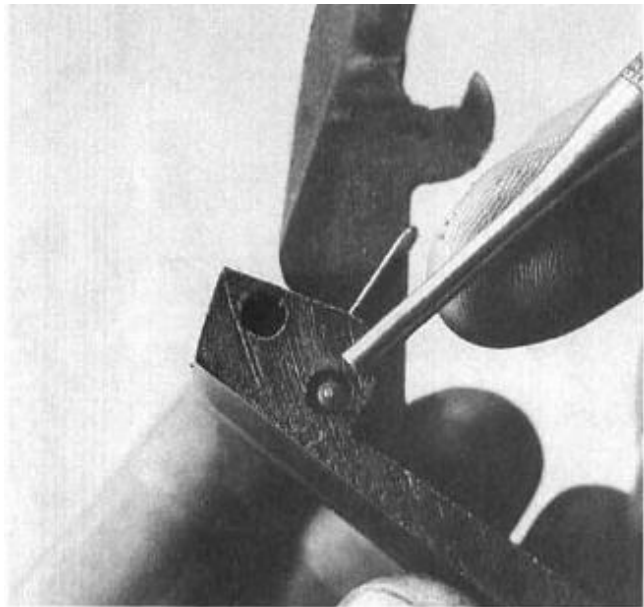
8. Remove the lock screw and the main screw at the lower rear of the receiver on the left side.

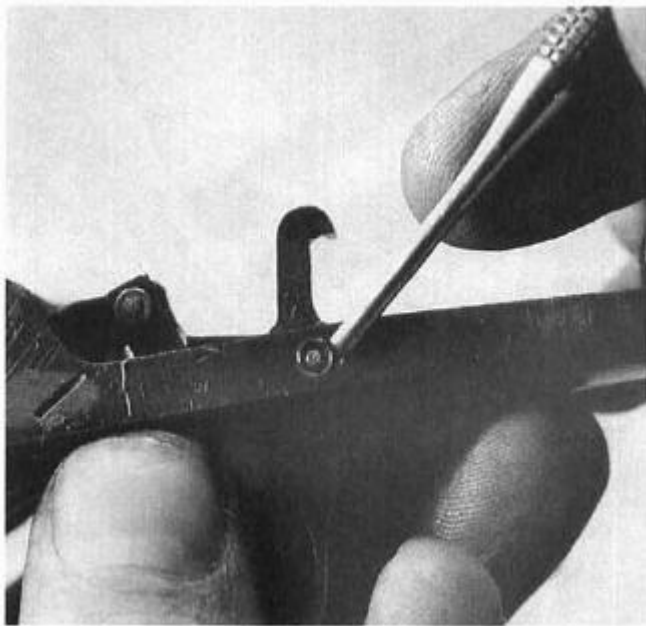
**9.** Remove the trigger group downward.



**10.** Move the safety to the off-safe

position, restrain the hammer, pull the trigger, and ease the hammer down to fired position. Push out the hammer pivot, and remove the hammer and its spring upward. The spring is under slight tension, so restrain it as the pin is removed.

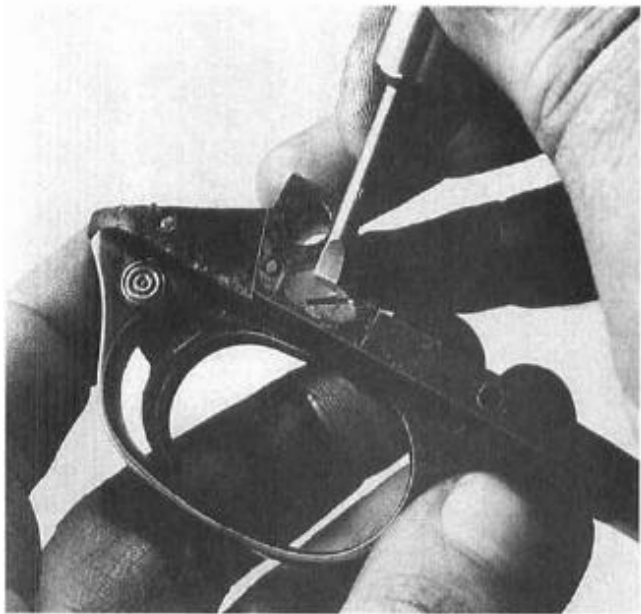




**11.** Drift out the sear pin, and remove the sear and its spring upward. There is an



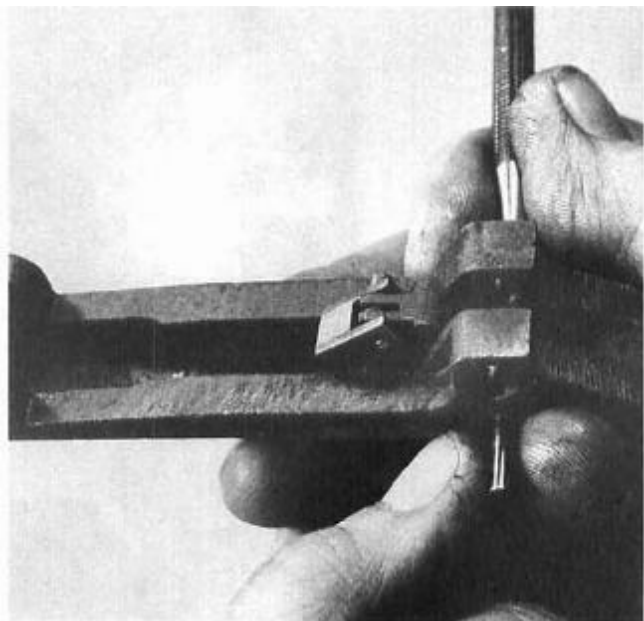
adjustment screw in the front extension of the sear, and if properly set, it should not be disturbed.



**12.** Remove the trigger stop screw, located on the right side, just forward of the

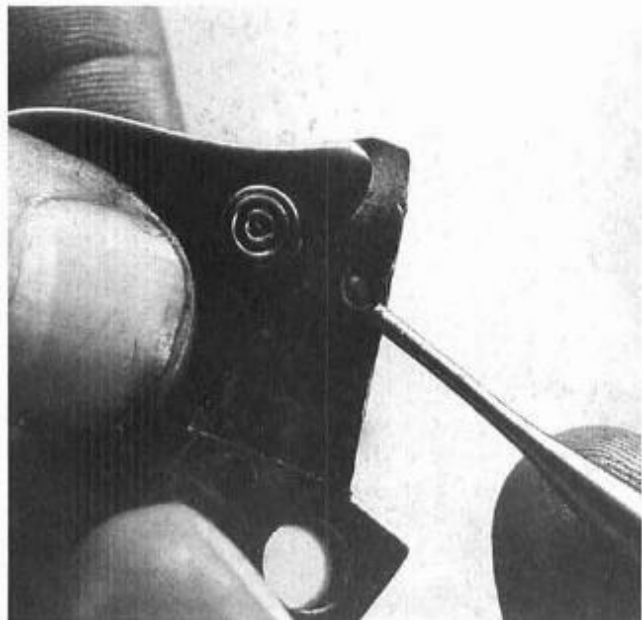
trigger pin. This screw is usually staked in place, and removal may require some effort.

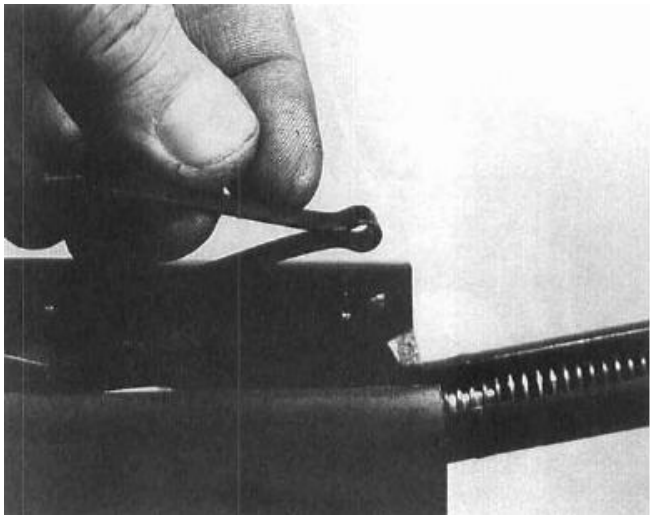
- 13.** Push out the trigger pin, and remove the trigger upward. Caution: The trigger spring is under compression, and will exit with some force if not restrained. The disconnect and its spring are mounted on the front of the trigger by a cross pin that is riveted in place, and this should not be removed unless necessary for repair.



**14.** Drift out the cross pin at the upper rear of the trigger housing, holding a fingertip

over the small hole at the upper rear to arrest the safety spring. Remove the spring and plunger upward, and take out the safety button toward either side.

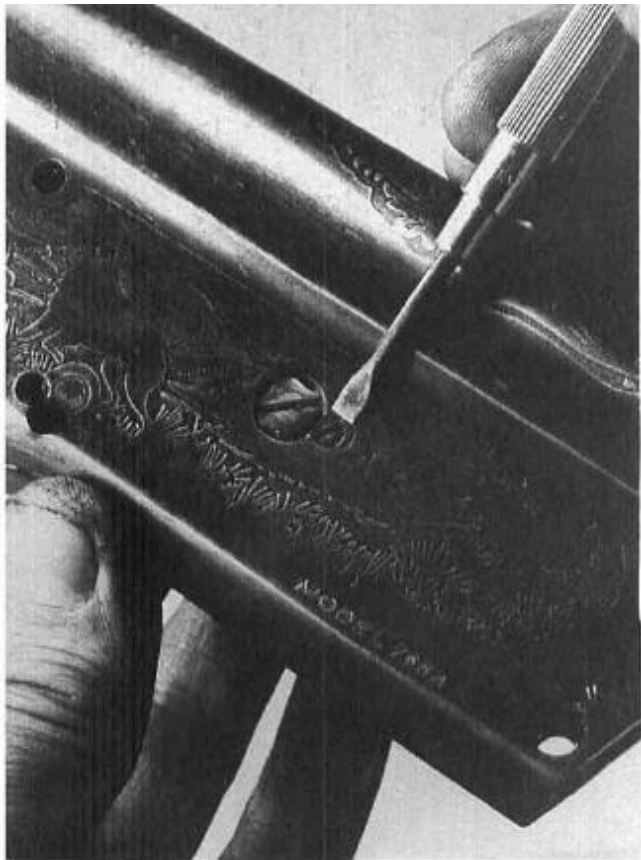




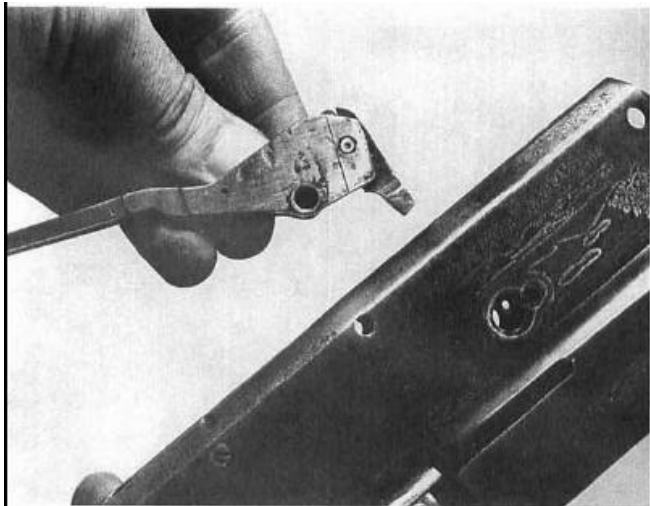
- 15.** Insert a screwdriver in the bottom of the receiver and pry the carrier spring off its post at the rear, unhook it from its front post, and remove it. Caution: Restrain this spring

during removal.



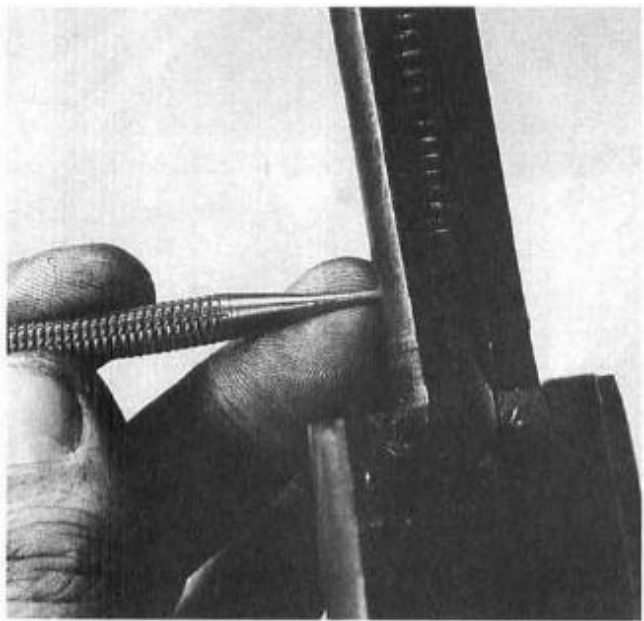


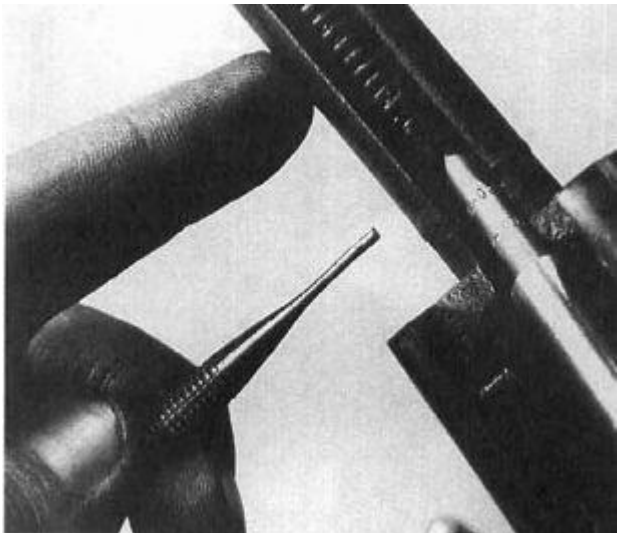
- 16.** Take out the lock screw and the carrier pivot screw on each side of the receiver.
  
- 17.** Remove the carrier from the bottom of the receiver. The carrier dog and its spring and plunger are mounted on the right rear wing of the carrier by a cross pin. If removal is necessary for repair, the pin is drifted out toward the left. Note that the carrier dog spring is quite strong, so control it and ease it out.



- 18.** Retract the bolt until the bolt spring follower passes the small detent hole on the left side of the spring housing, and insert a drift punch or a small pin to arrest the follower and

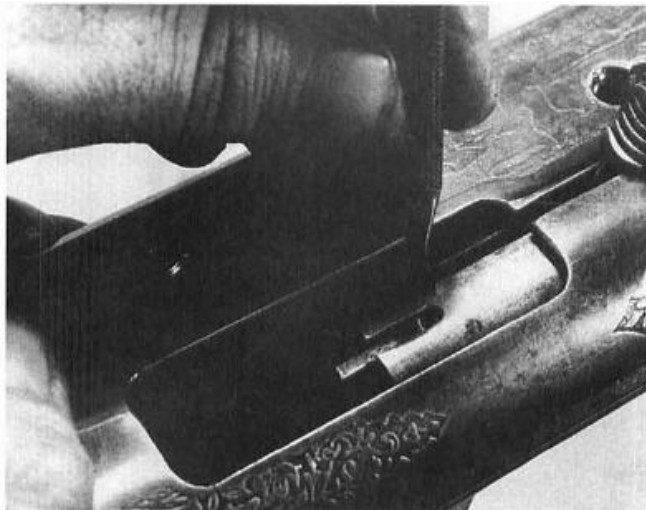
spring.





**19.** Move the bolt forward, and swing the link bar outward. Insert a screwdriver or some other heavy tool to bear on the front of the bolt spring

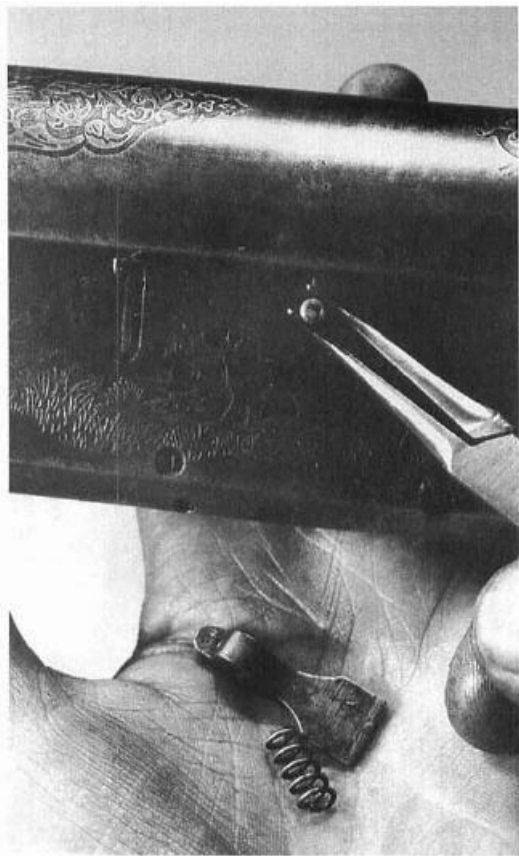
follower, and exert slight pressure toward the rear. Remove the detent pin or drift from the access hole, and slowly release the spring tension, removing the spring and follower from the bottom of the receiver. Caution: This is a strong spring, and it is compressed, so keep it under control.



**20.** Move the operating handle unit toward the rear, and position the bolt so the cross pin that retains the link bar lever is in alignment with the access hole on the left side of the receiver.

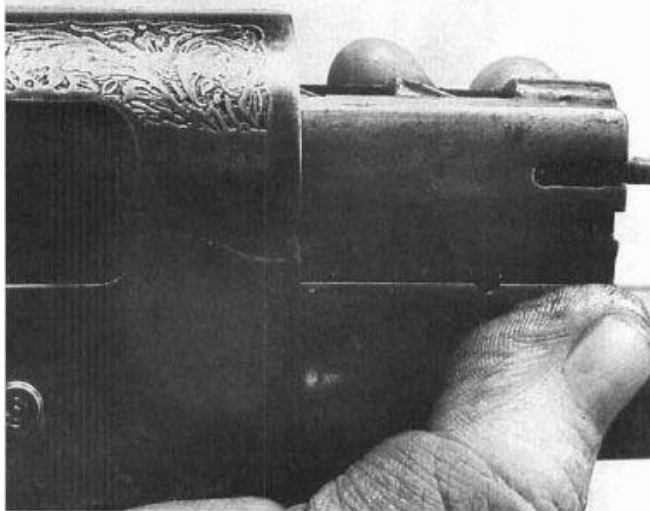
Use a very small drift punch to nudge the cross pin toward the left, and out the access hole.

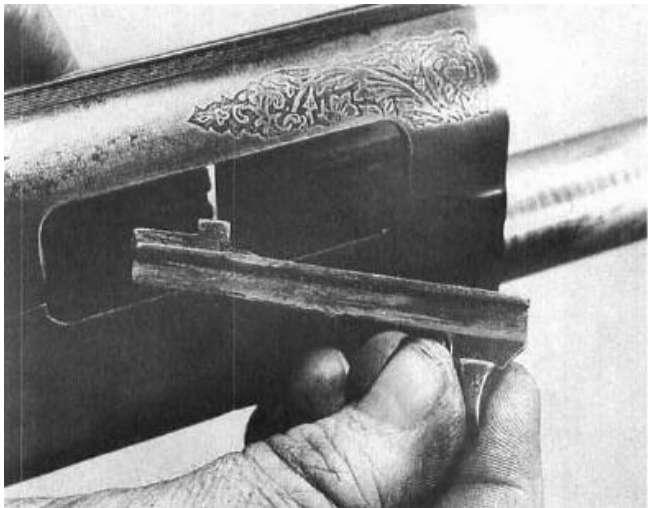




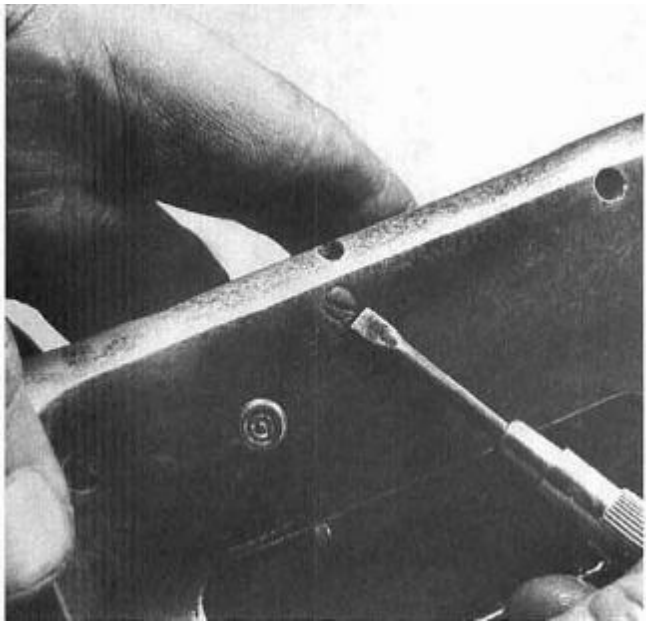
**21.** Since the pin is only partially accessible on the right side, it is not possible to drift it straight through. When it has emerged enough on the left side, grip it with pliers and pull it out. Keep a hand under the receiver as the pin is removed, as the link bar lever and its spring will be released downward.

**22.** Swing the link bar back inward, and remove the bolt assembly toward the front.

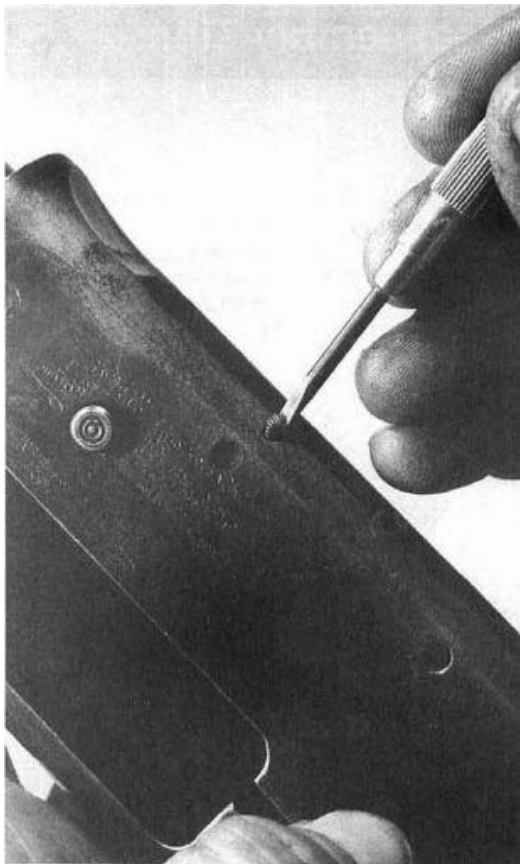




**23.** Move the operating handle forward, and take it out through the ejection port.

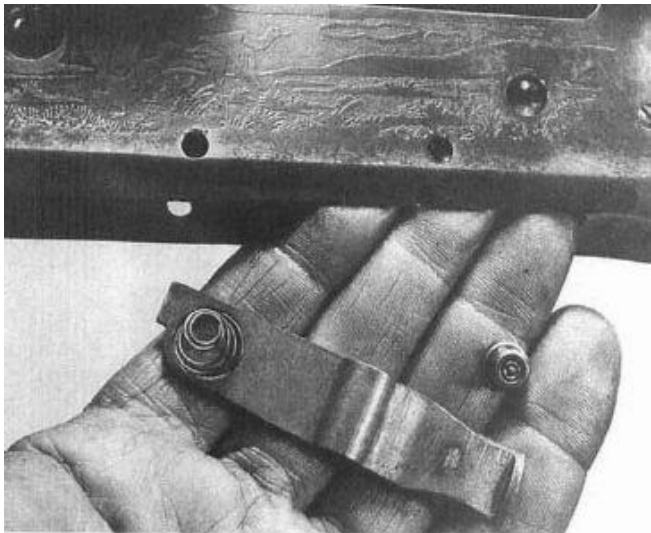


**24.** Remove the carrier latch pivot lock screw, on the right side of the receiver.

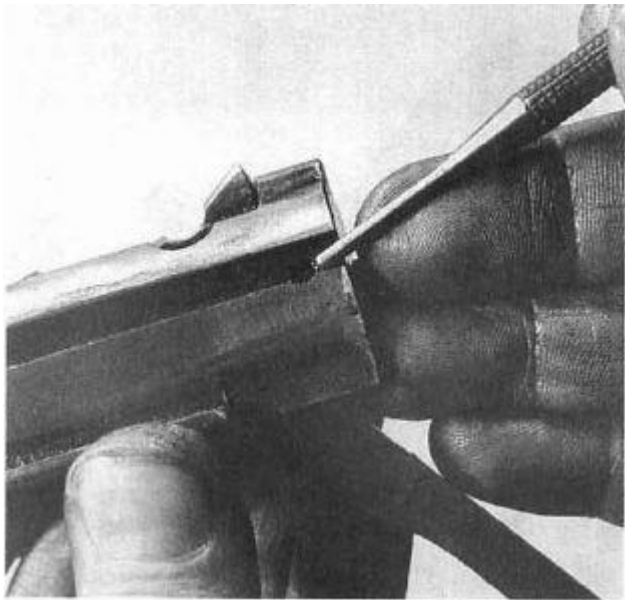


**25.** Remove the carrier latch pivot screw from the lower right edge of the receiver.

**26.** Remove the carrier latch, the latch button, and the latch spring from inside the receiver. Repeat this operation on the opposite side, taking off the shell stop.







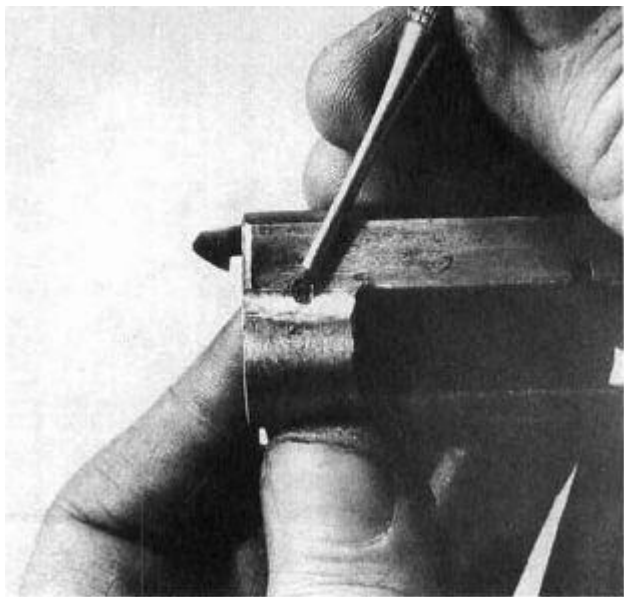
**27.** Drift out the cross pin at the rear of the bolt toward the right, and remove the firing pin toward the rear.



**28.** Push the link bar upward through the bottom of the bolt, tipping the locking block out

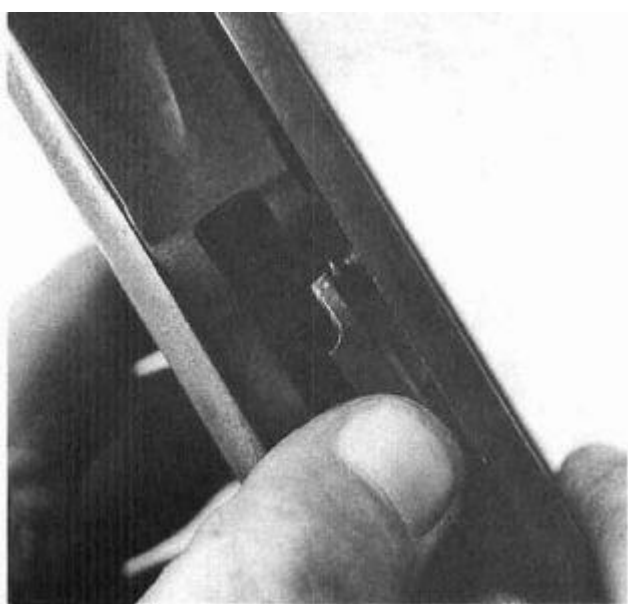
the top of the bolt, and remove the assembly upward. Drifting out the cross pin will allow separation of the link bar and locking block, but the pin is riveted and should be removed only for repair purposes.

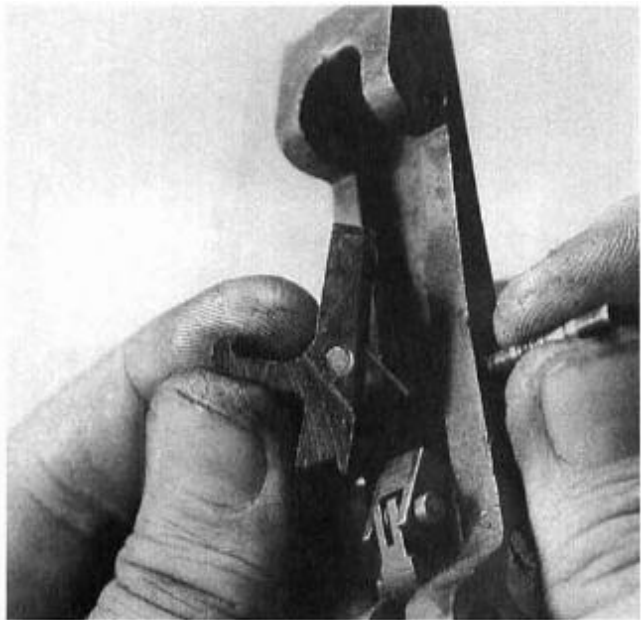
- 29.** The extractor is retained by a vertical pin at the front of the bolt on the right side. Drift out the pin, and remove the extractor toward the right. Caution: Restrain the plunger and spring, and ease them out toward the front.



# Reassembly Tips:

1. When installing the carrier spring, set it on its post at the rear, and engage its shorter arm with the lobe of the carrier. Then, push the longer arm inward and engage it behind the flange on the front post. During this operation, keep a thumb on the rear of the spring to keep it on the rear post.





2. When replacing the sear in the trigger housing, it will be necessary to use a slave pin to

hold the spring in the sear until the cross pin is installed. The sear is shown with the slave pin in place. A slave pin will also help when the trigger and its spring are installed.





**3.** Replacing the hammer and its spring also calls for the use of a slave pin, but it is possible

to replace the hammer without one.

**SKB Model**

**XL900MR**



## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the SKB Model XLSOOMR also apply to the following guns:

**Ithaca Model 300**

**SKB Model XL900**

**SKB Model 1300**

**Ithaca Model 900**

**SKB Model 100**

**SKB Model 1900**

**Data:** SKB Model  
XL900MR

**Origin:** Japan

**Manufacturer:** SKB Arms  
Company, Tokyo

**Gauges:** 12 & 20

**Magazine**

<b>capacity:</b>	5 rounds
<b>Overall length:</b>	50 inches, (with 30-inch barrel)
<b>Barrel length:</b>	24, 26 & 30 inches
<b>Weight:</b>	7 pounds

Except for a few external features, the Model XL900MR and the regular Model XL900 are identical. These two **SKB** models were imported into the U.S.

very briefly, in 1979 and 1980, but apparently quite a few of them were sold. Ithaca briefly imported the **SKB** semi-auto and gave them their own model numbers. The present importer of the current **SKI3** line is Guns Unlimited of Omaha, Nebraska.

# Disassembly:

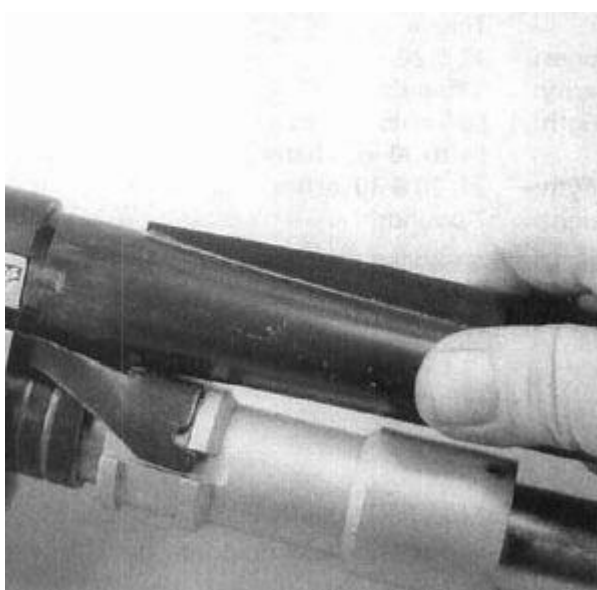
1. Lock the action open, and set the safety in the on-safe position. Unscrew and remove the magazine end cap.





**2.** Remove the forend toward the front.



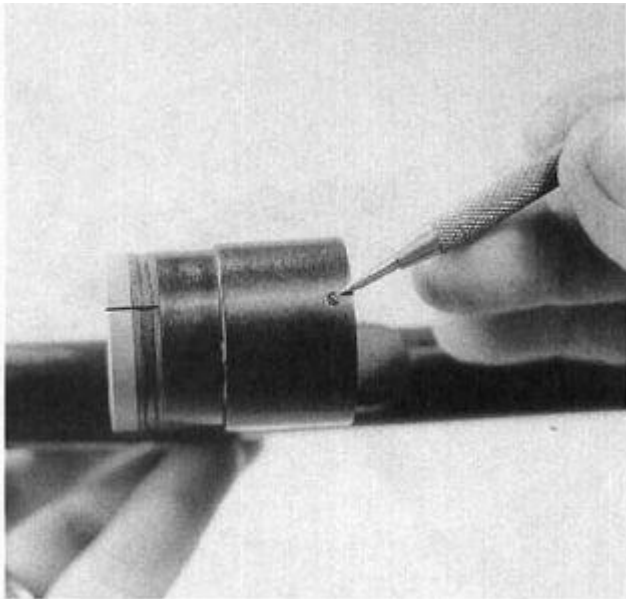


**3.** Move the barrel forward to the point shown.

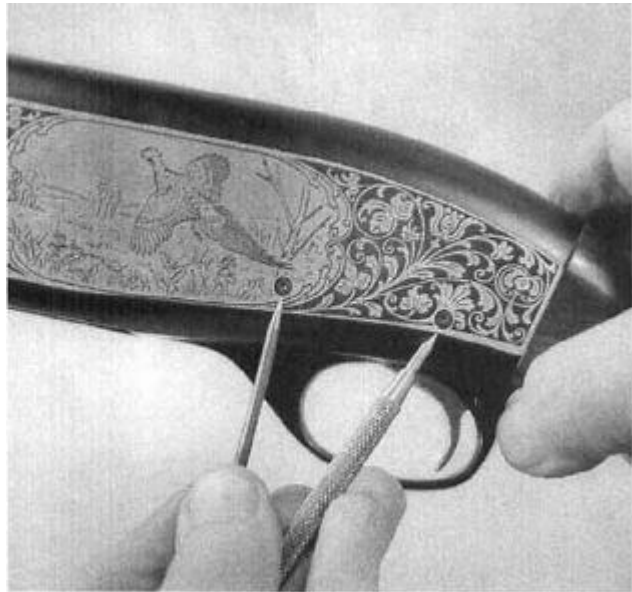


- 4.** Restrain the bolt, push the carrier release button, and ease the bolt forward. Remove the barrel toward the front.

5. The bushing at the front is retained by a very small screw, and the gas seal rings at the rear can be spread and removed if necessary for repair. In normal take-down, this system is left in place.



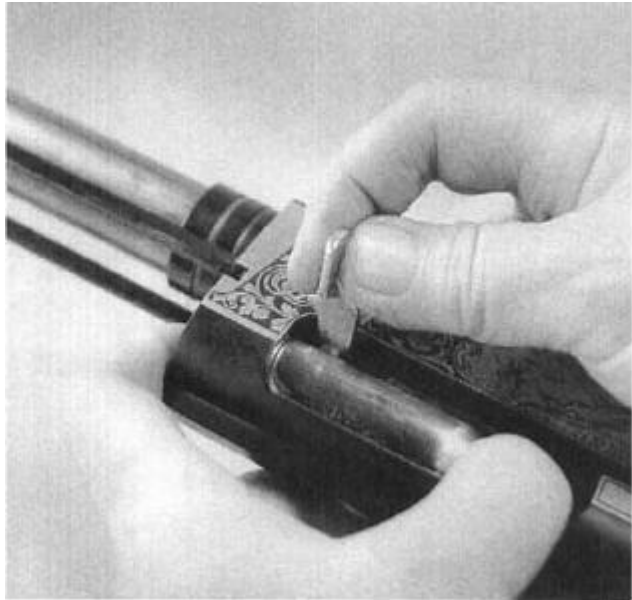
**6.** Push out the two trigger group retaining pins.





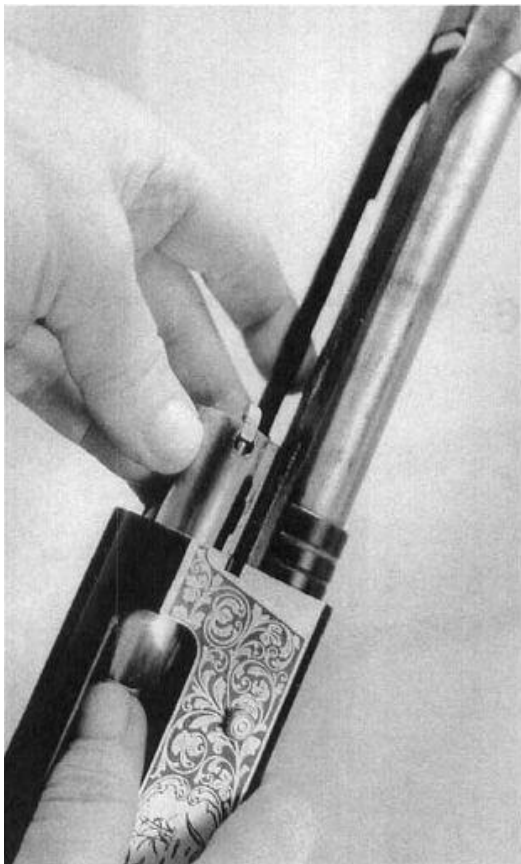
7. Remove the trigger group downward.



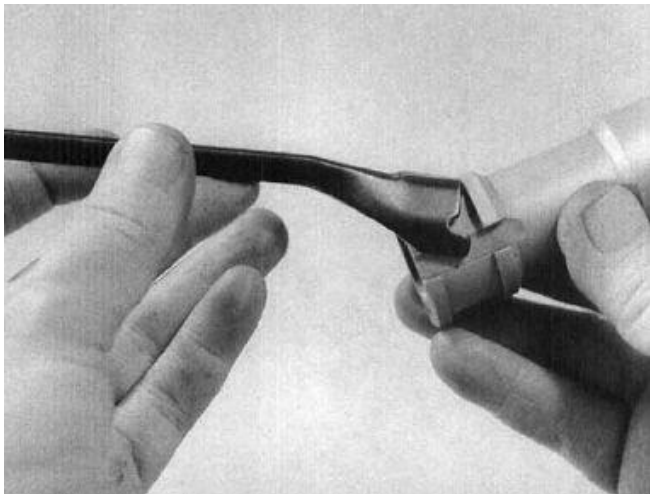


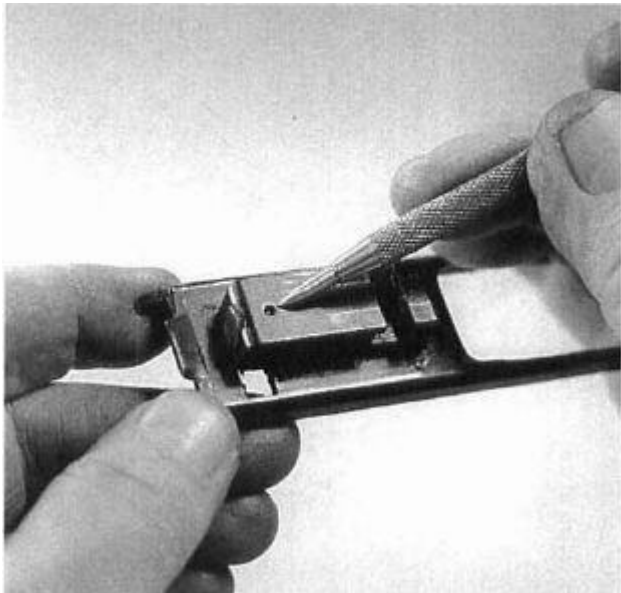
8. Move the bolt forward until the wider portion of the slot is aligned with the bolt handle. Remove the bolt handle

toward the right.



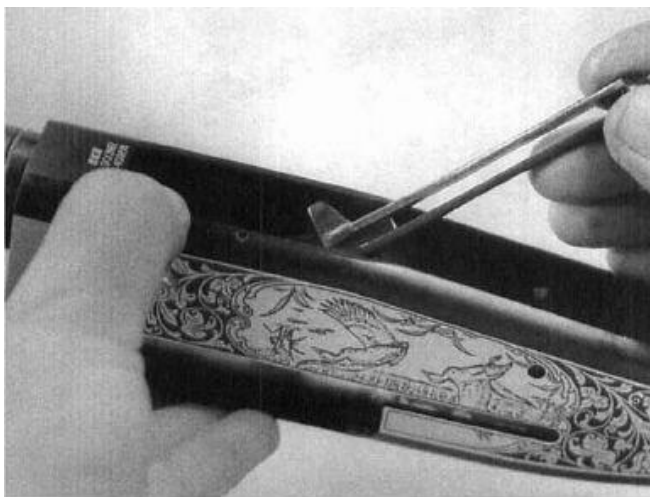
- 9.** Remove the bolt and action slide assembly toward the front. The bolt is easily detached from the action slide.
  
- 10.** The action slide is detached from the piston by tilting it upward, as shown.





**11.** The bolt buffer is staked in place, and it retains the bolt handle plunger and spring. This system is not routinely

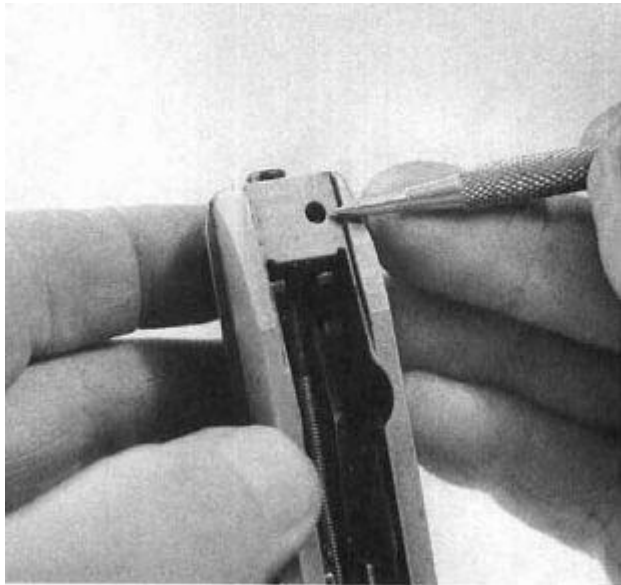
dismountable.



- 12.** Lift the rear of the bolt spring strut, and turn the strut for removal.

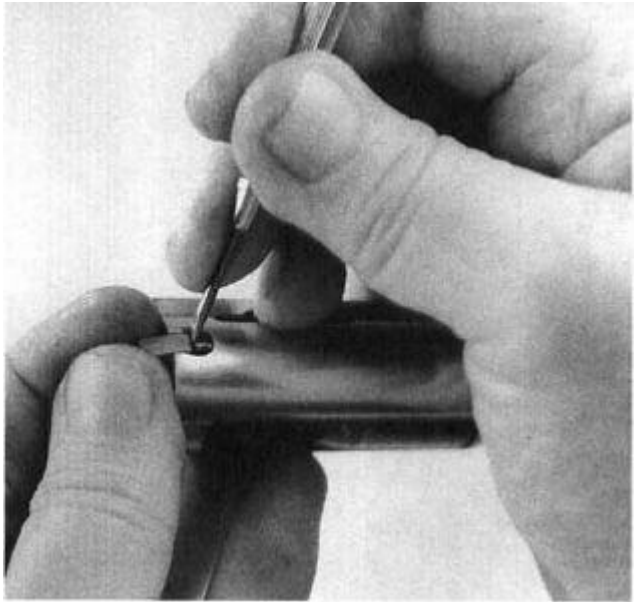
**13.** A vertical roll pin at the rear of the bolt on the right side retains the firing pin and its return spring. The pin is drifted out upward. Removal of the firing pin will free the locking block for removal downward.

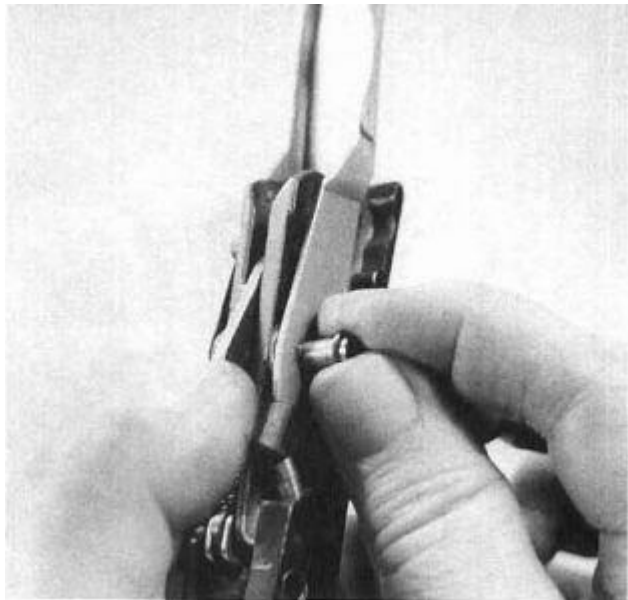




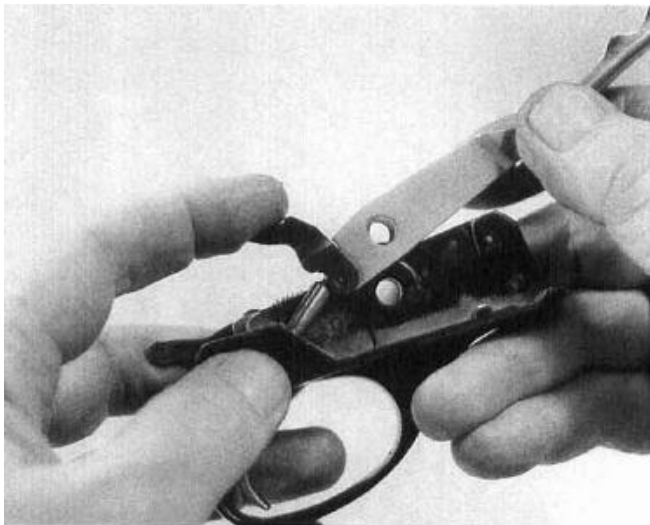
- 14.** Insert a small tool between the extractor and its plunger, and depress Me plunger rearward. Tip the extractor out toward

the front. Caution: Control the  
plunger and spring.



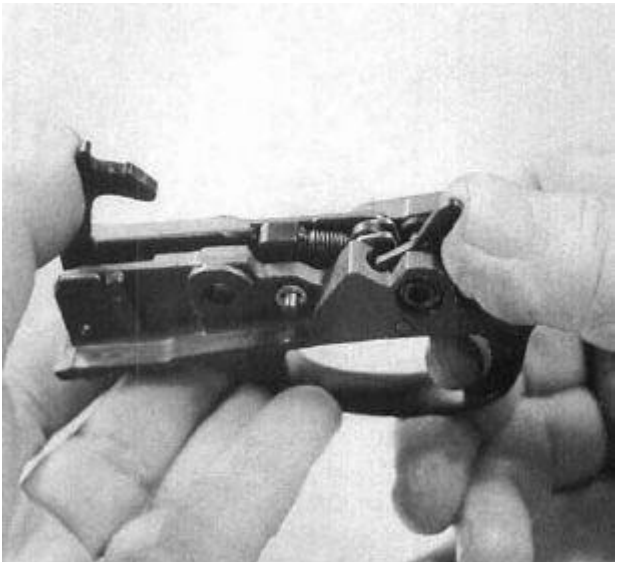


**15.** Restrain the carrier plunger and spring on the right side of the trigger group, and push out the carrier pivot.



- 16.** Remove the carrier upward. The carrier dog pivot is heavily riveted in place, and should be removed only for repair.

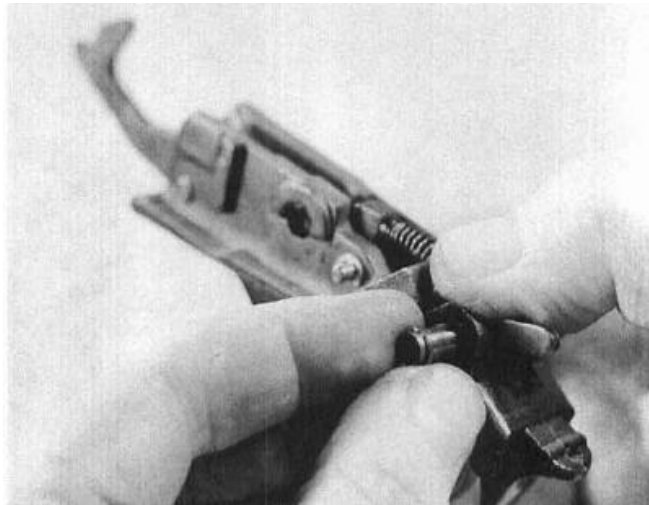
**17.** Remove the carrier plunger and spring.



**18.** Move the safety to off-safe position, and depress the safety sear, the lever at left rear. Restrain the hammer, pull the trigger, and ease the hammer down to the forward position.



**19.** Restrain the safety sear, and remove the rear cross pin sleeve toward the left.



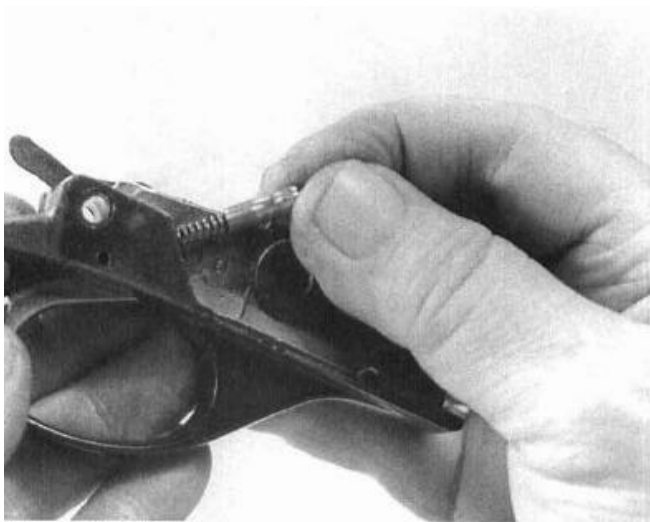




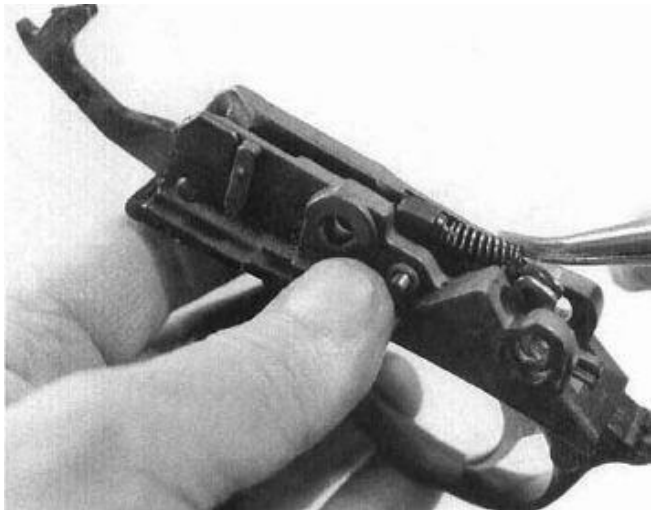
**20.** Remove the safety sear upward and toward the rear.

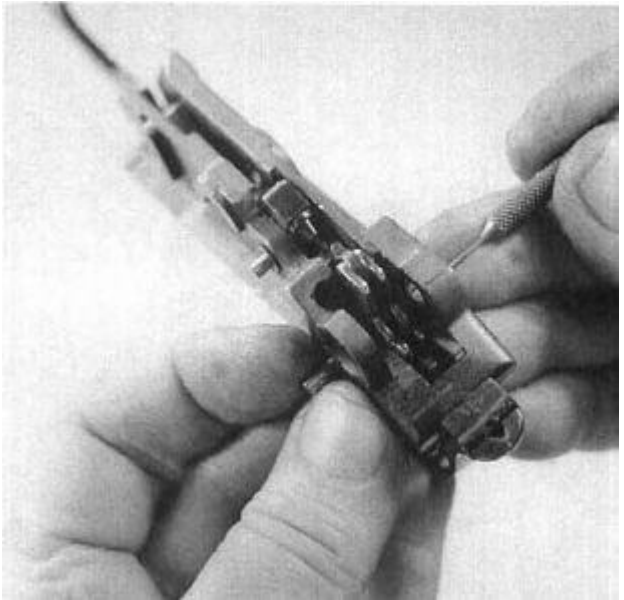
**21.** Remove the safety sear

plunger and spring.

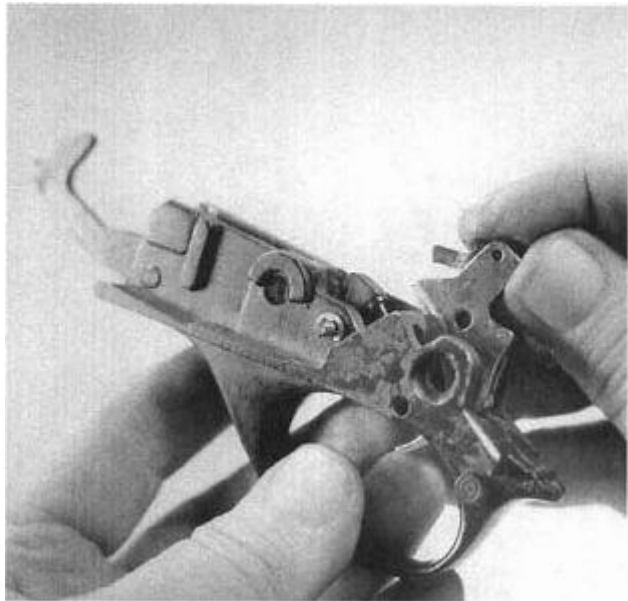


**22.** Remove the combination trigger and sear spring.



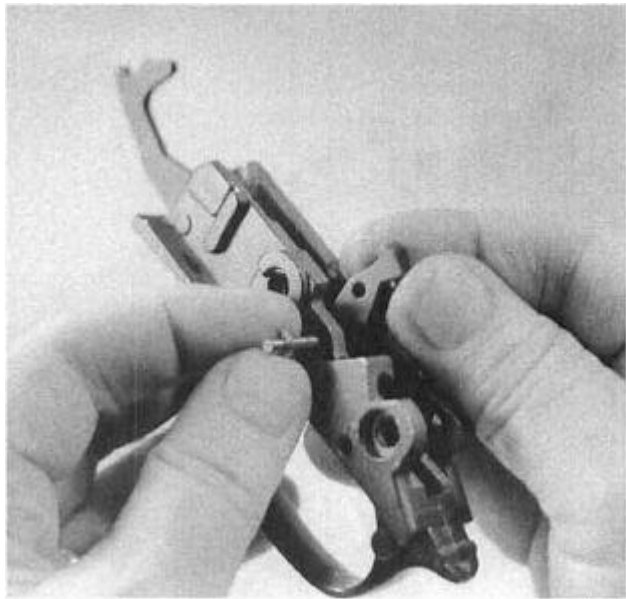


**23.** Push out the trigger pin toward the left.



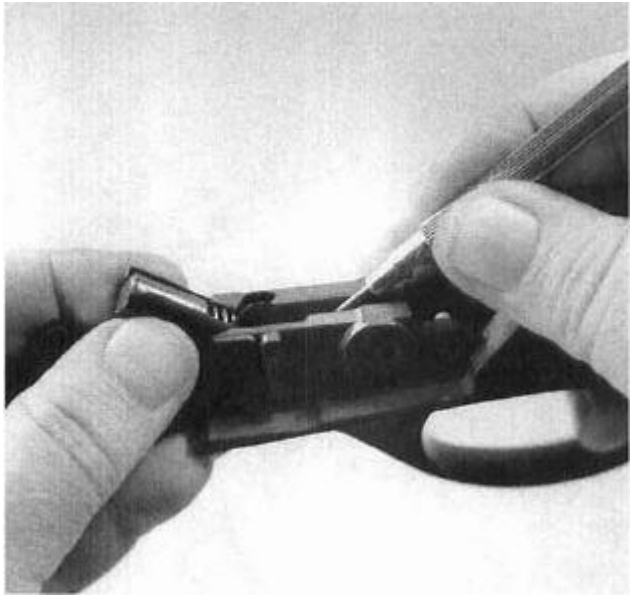
**24.** Remove the trigger assembly upward. The trigger arm is easily detachable by pushing out the pin at the top.

**25.** Remove the sear pin toward the left, and take out the sear upward. Do not remove the C-clip on the sear pin.

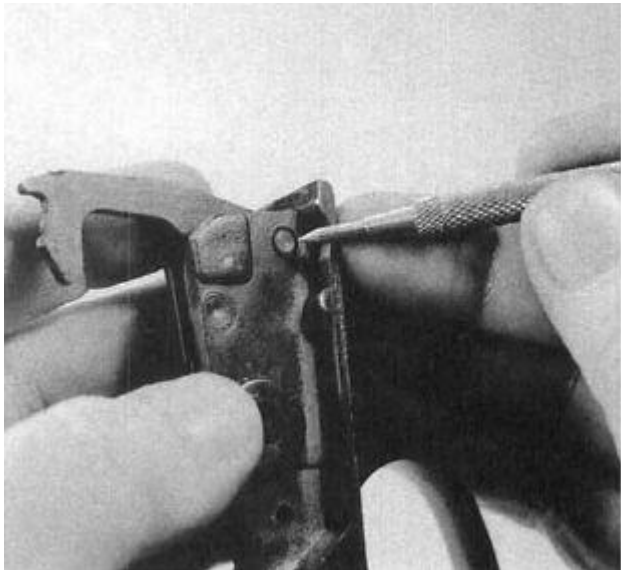


**26.** Insert a slim tool to nudge the hammer spring assembly out upward. The hammer spring housing can be spread to

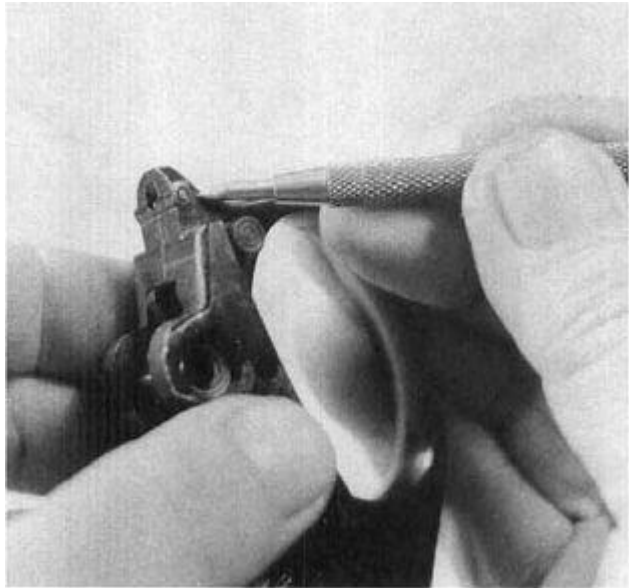
release the spring, if necessary  
for repair.







**27.** Drifting out the cross pin will release the hammer for removal.



**28.** Pushing out the cross pin at the rear of the trigger group will release the safety spring and plunger. Cover the opening at

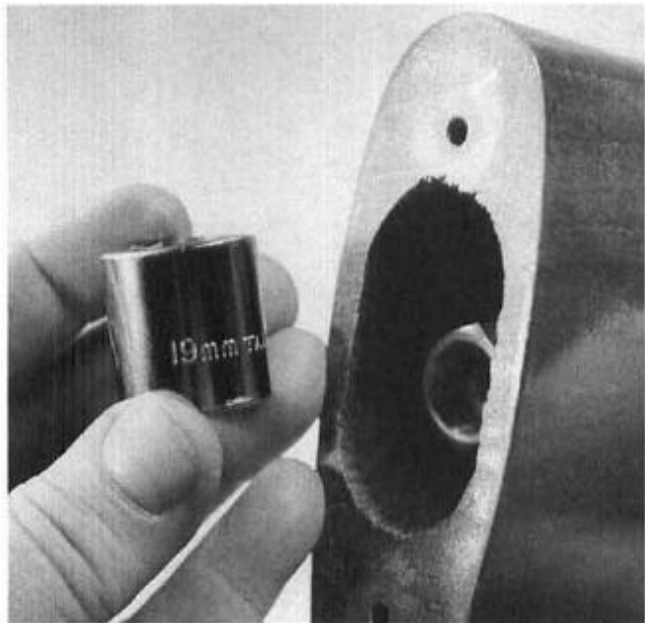
the top as the pin is removed, to arrest the spring. With the spring and plunger removed, the safety button can be removed toward either side.

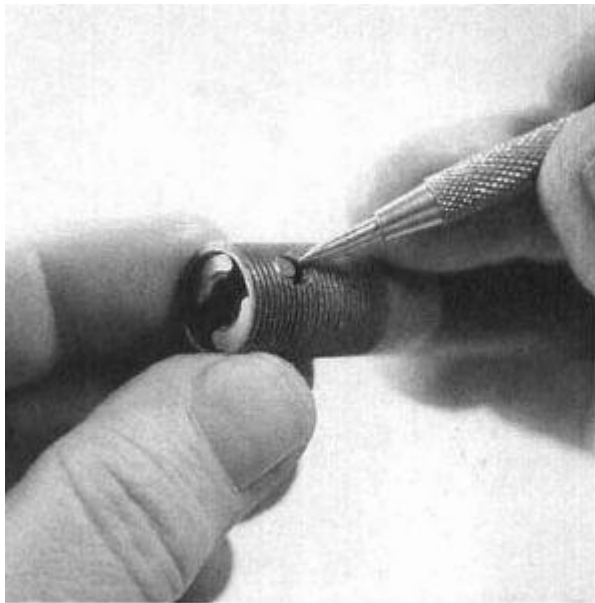
- 29.** Just inside the receiver lower edge on the right side is a small lengthwise spring clip that retains the carder latch pivot pin. A small and sharp tool with a bent tip is necessary for taking off the clip toward the rear. The latch pivot can then be pushed out upward, and the carrier latch and its button and spring can

be taken out inward. In normal takedown, this system is best left in place.



**30.** Removal of the stock retaining nut requires a 19mm socket. Beneath the nut are two spring washers and a heavy solid washer. Remove the stock.





**31.** Depress the bolt spring end piece, and push out the retaining cross pin. Caution: Control the spring, Remove

the end piece, spring, and follower toward the rear. If removal of the magazine spring and follower are necessary, they are retained by a standard keeper ring at the front of the magazine tube. Again, control the spring.



# Reassembly Tips:

1. When replacing the bolt spring strut, note that it must be installed as shown, curving downward at the rear.





2. When replacing the trigger group, the bolt must be drawn slightly rearward, to insure proper engagement of the safety sear.

# **L.C. Smith Double**



## Similar/Identical Pattern Guns

The same basic assembly/disassembly steps for the L.C. Smith also apply to the following gun:

### **Marlin L.C. Smith**

**Data:** L.C. Smith Double

**Origin:** United States

L.C. Smith Gun

Co., Syracuse,

New York Hunter

Arms Company

**Manufacturer:** Fulton, New York

Marlin Firearms

Co., North

Haven, Connecticut

**Gauges:** 12, 16, 20, 410

**Overall length:** 42 to 50 inches

Barrel length:	26 to 34 inches
Weight:	5-3/4 to 7 pounds

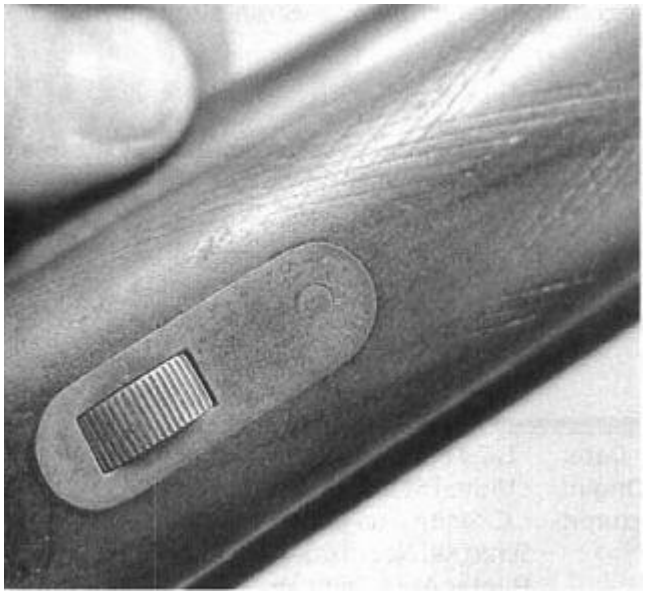
Lyman Cornelius Smith began making his double-barrel shotgun in 1877, and it was a design that would last for nearly 100 years. The business was sold to Hunter Arms in 1890, and they made the L.C. Smith gun until 1945. In that year, Marlin purchased the Hunter Arms Company, and produced a small quantity of the guns under the L.C. Smith

name until around 1951. The design was used again between 1968 and 1972 by Marlin. With minor variations, all of these guns have the same basic mechanism, and the instructions will apply to any of them.

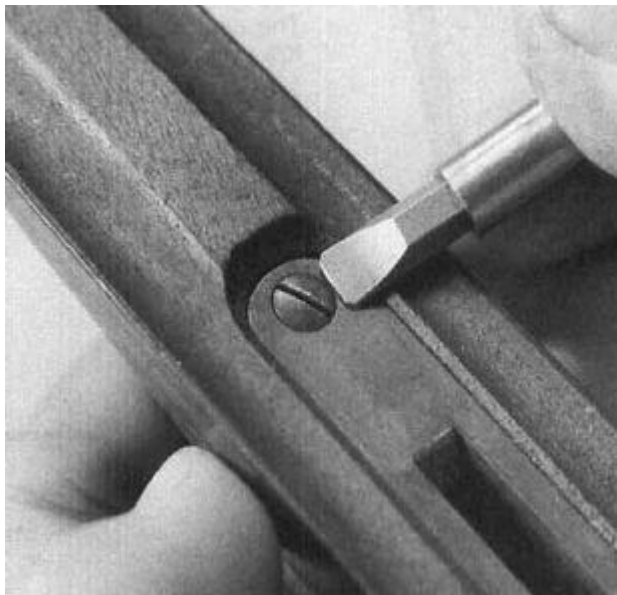


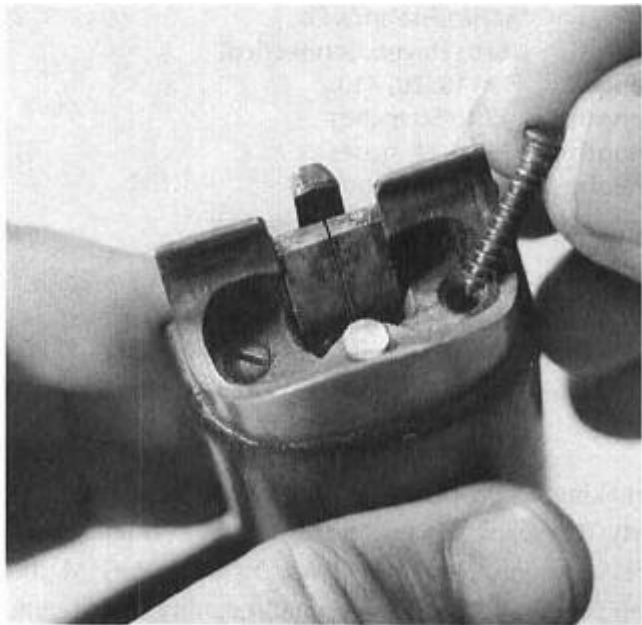
# Disassembly:

1. The forend release latch is located on the underside of the forend. Roll it toward the front, and tip the forward end of the forend away from the barrel and remove it downward. Some guns may have a different type of release latch, or no latch at all. On the latter, the front of the forend is simply pulled away from the barrel.



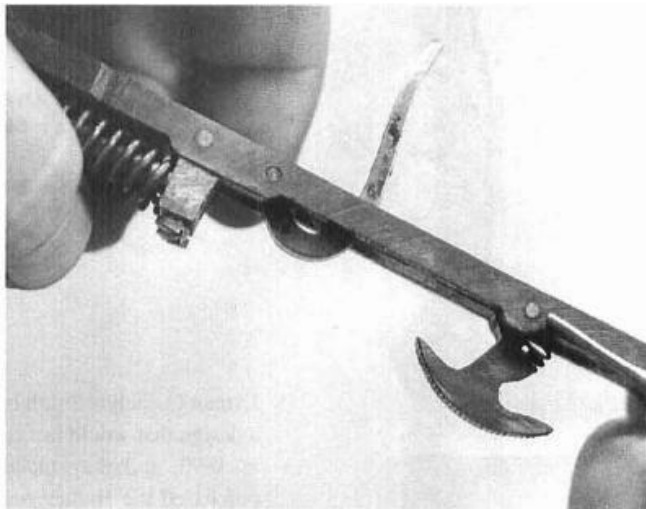
- 2.** Remove the vertical screw on the inside of the forend at the forward end of the forend iron.





3. Remove the two screws in the recess at the rear of the forend, and remove the forend

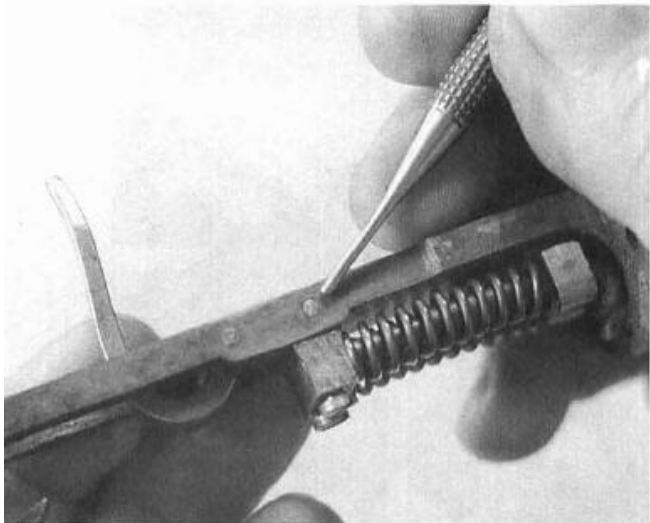
iron assembly from the forend wood. The external latch plate on the underside can also be removed. It is usually tightly fitted so take care to avoid chipping the wood.



**4.** The forend release latch is retained on the forend iron by a cross pin. Drifting out the pin will allow removal of the latch downward, along with its spring. The forend retaining spring and its small torsion wire positioning spring are also retained by a cross pin. Restrain the wire spring when drifting out the pin, and remove the retaining spring downward.

**5.** The gun shown is equipped with selective ejectors, and the

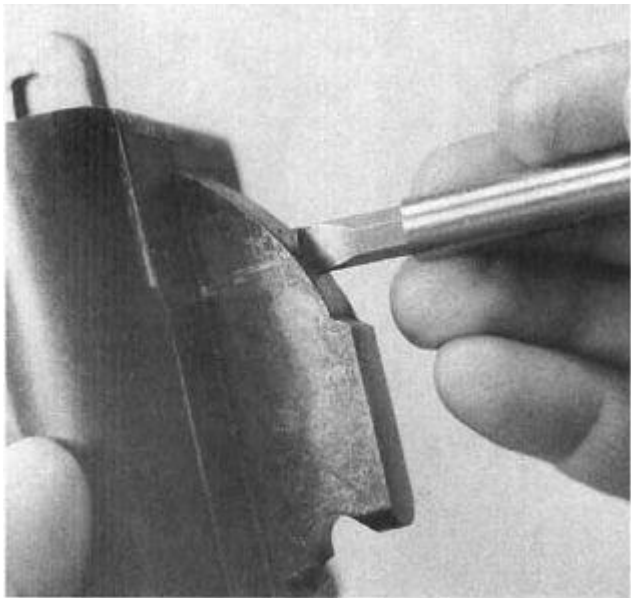
ejector plungers and springs are based against a block which is held on the underside of the forend iron by a cross pin. Drift out the cross pin, and remove the assembly downward. The captive spring unit is retained in the block by two screws. When removing the screws, restrain the springs.

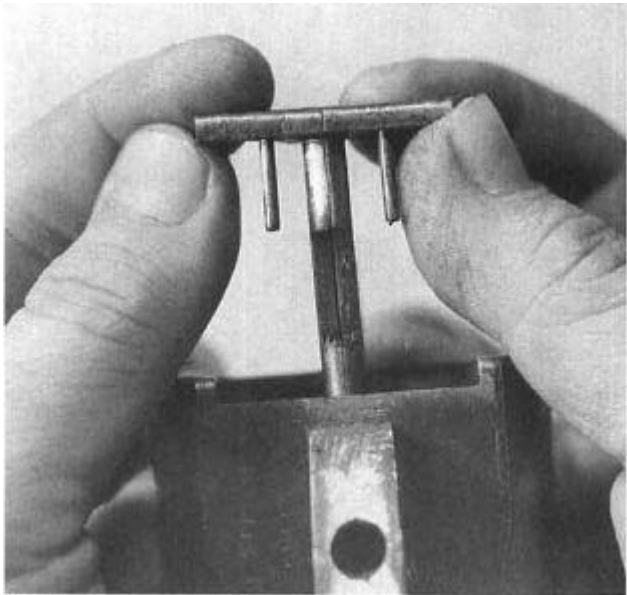


6. Operate the barrel latch, tip the barrels downward, then remove them upward. Back out or remove the screw on the underside, in the rear slope of

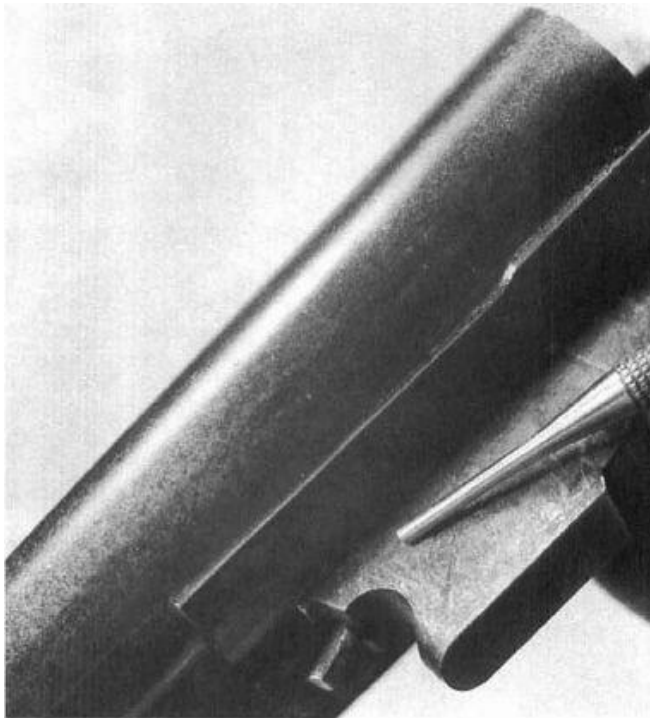


the underlug.



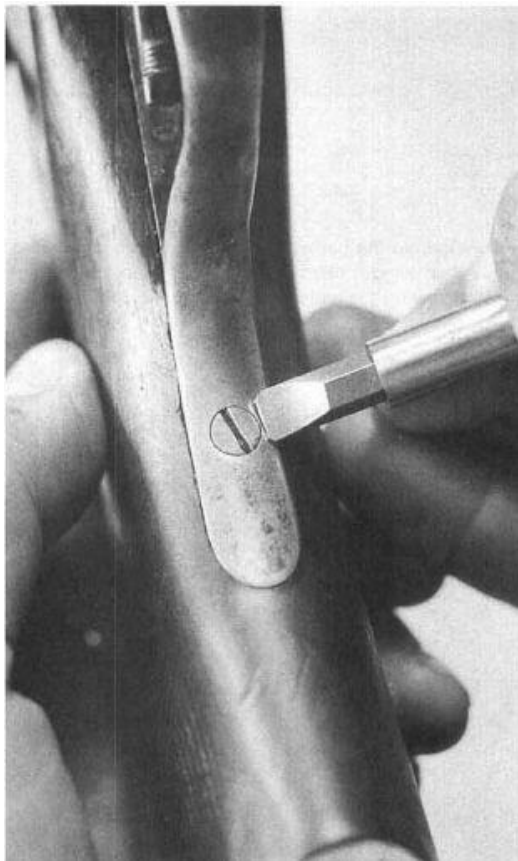


7. Remove the ejectors toward the rear.

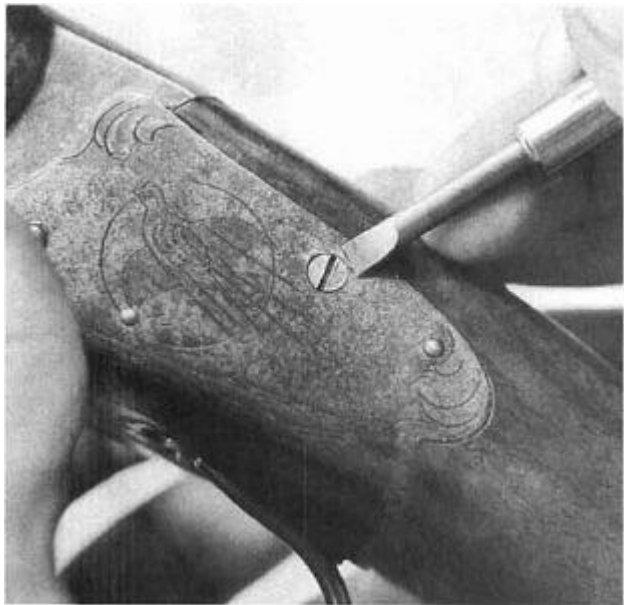


8. Drifting out the cross pin

(shown at the tip of the tool) at the upper front of the barrel underlug will release the ejector plunger for removal toward the front.



- 9.** Remove the screw on the underside at the rear of the trigger guard, and unscrew the guard counter-clock-wise.
  
- 10.** Remove the screw near the upper edge of the left lockplate. If there are lockplate retaining screws on each side at the base of the front extension, take them out.





- 11.** Insert a tool from the right side, through the lockplate cross screw hole, to bear on the inside of the left lockplate, and tap it gently to nudge the lockplate out of its recess in



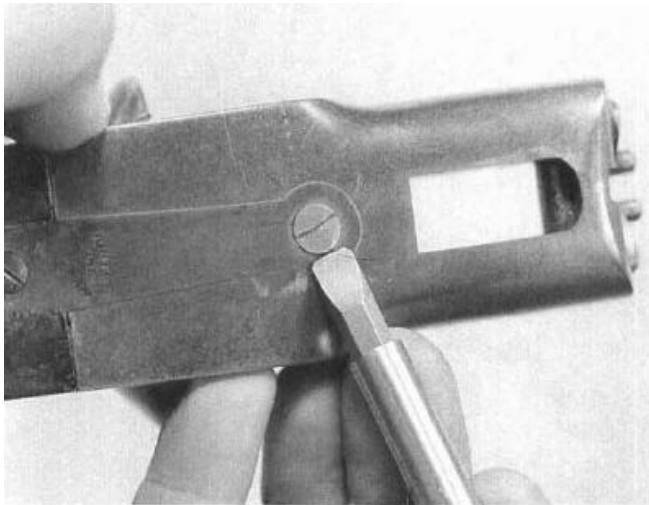
the receiver. Swing the rear of the lockplate outward, then remove it toward the rim. Repeat this operation with the right lockplate.

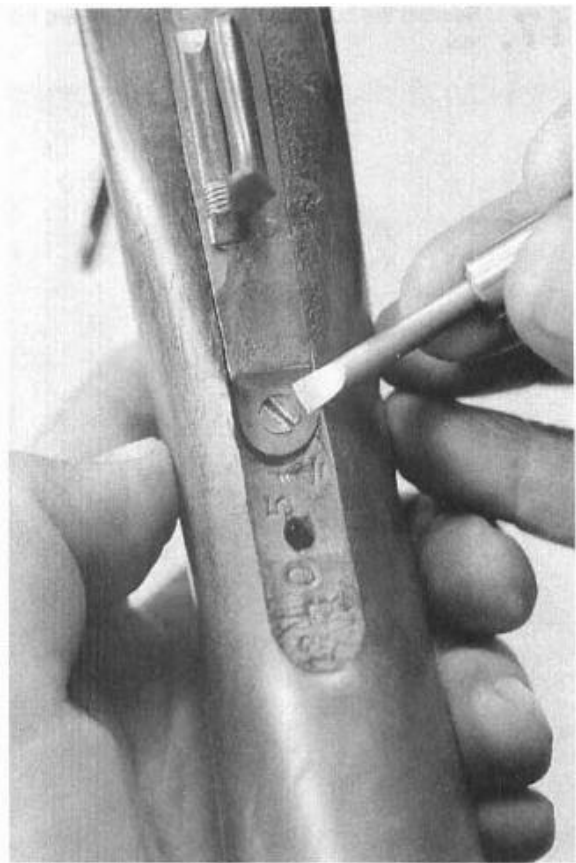


**12.** will be freed. and can be

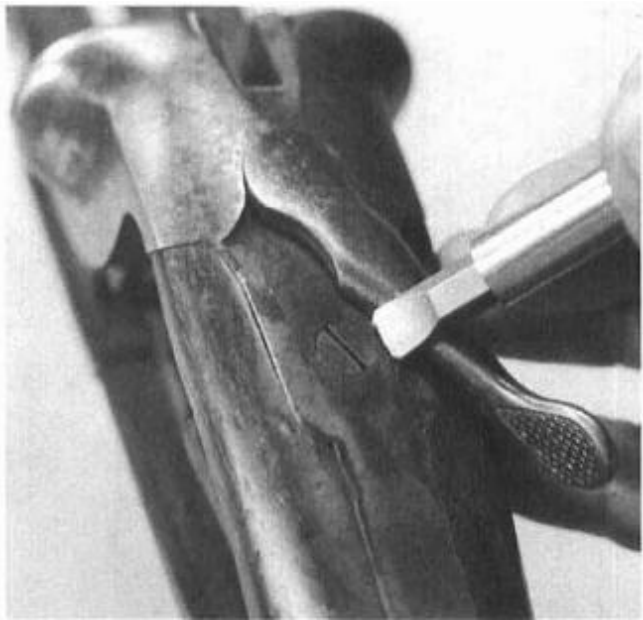
pushed out from the front  
When the lockplates are  
removed, the firing pins and  
removed toward the rear.

- 13.** Remove the vertical screw in  
the front tip of the trigger  
plate.

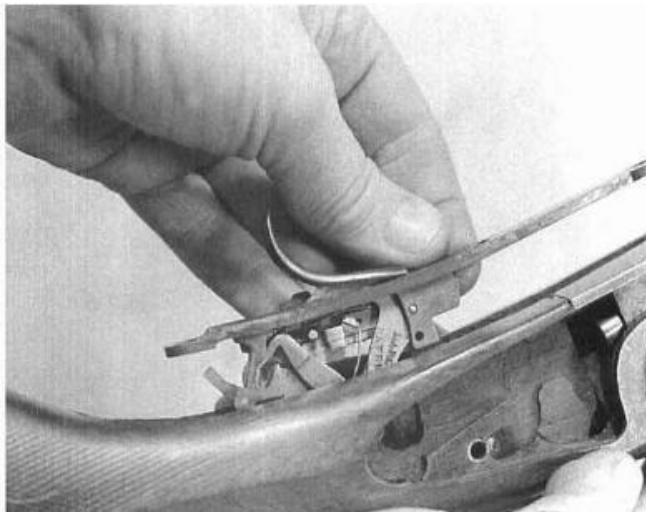




- 14.** Remove the vertical screw on the underside at the rear of the trigger plate.



**15.** Remove the vertical screw on top, just to the rear of the barrel latch lever. After removal of the screw, a tool to trip the barrel latch detent, inside the slot in the breech face, and allow the lever to move to center position, partially relieving the tension of its spring.



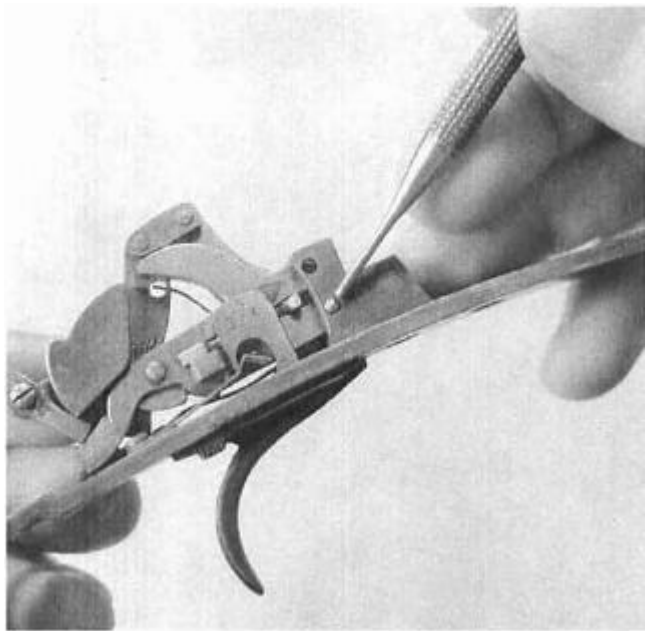
**16.** Remove the small screw on the underside, just forward of the trigger. Remove the trigger plate assembly downward.

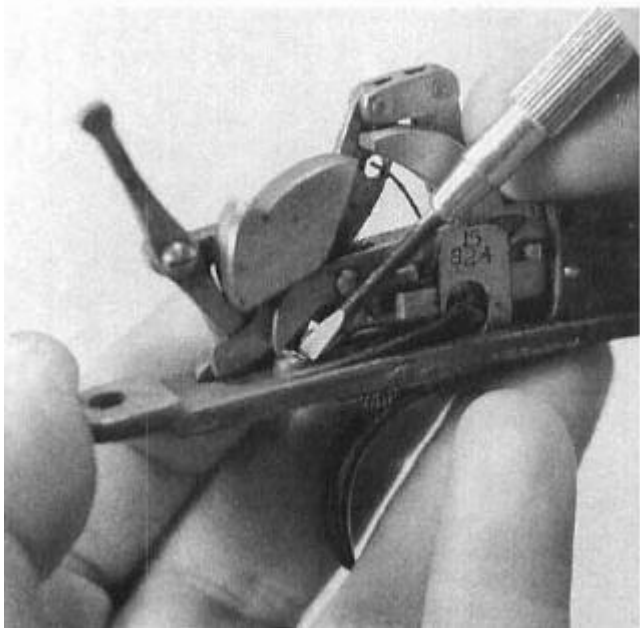


**17.** Remove the buttstock downward and toward the rear.



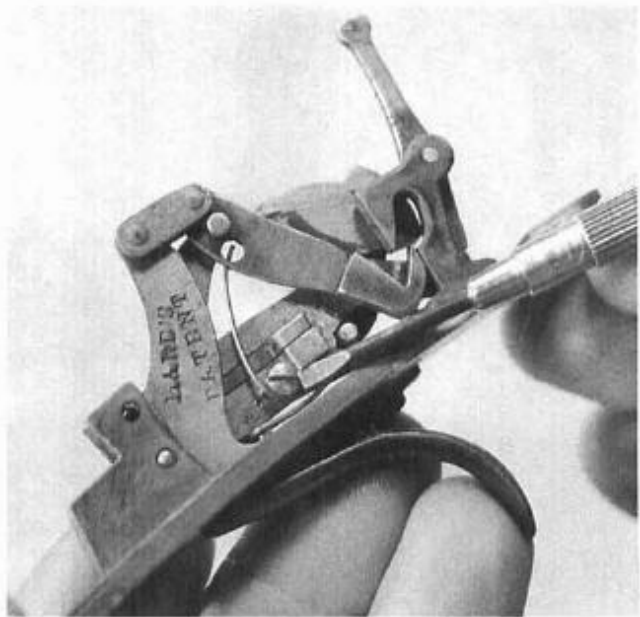
**18.** Drifting out the trigger cross pin will release the trigger assembly within the plate. Removal of the trigger will require drifting out the front cross pin in the spur link at the top. This will also release the inertia assembly, and it can be taken off upward and toward the rear.





**19.** After removal of the inertia assembly, taking out this small screw will allow the trigger

and change lever spring to be taken off toward the rear, and the change lever (barrel selector switch) can then be removed downward. The safety lever can be taken off by removing its cross screw.



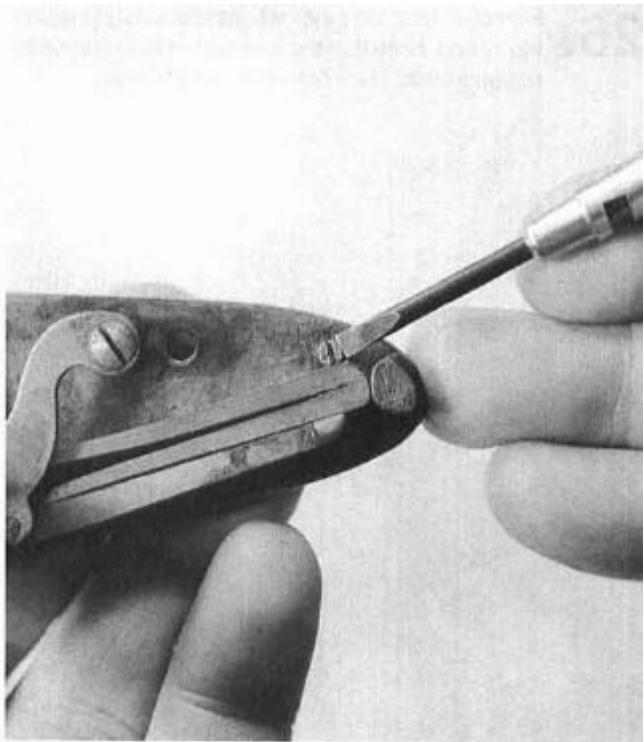
**20.** On the opposite side of the assembly, a cross screw retains the inertia system

spring. This spring must be removed before the inertia assembly is taken off.

- 21.** Depress the sear upward at the rear to drop the hammer to the fired position, and use pliers to compress the hammer spring while removing the hammer spring retaining screw near the post at the rear of the lock. As an alternative to this, if you have a mainspring tool (see [Reassembly Tips](#)), leave the hammer cocked and slide the tool onto the spring to keep it under control while

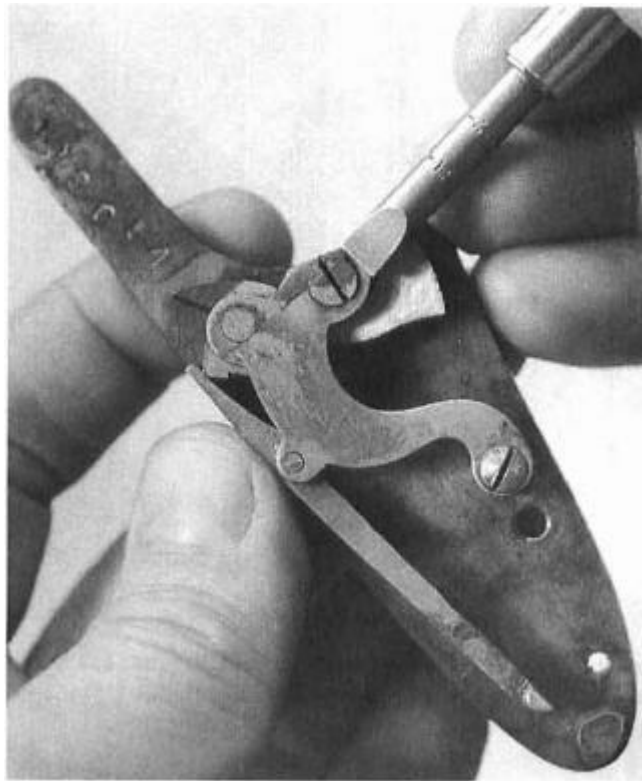


removing the retaining screw.



**22.** Remove the spring toward the rear and upward.





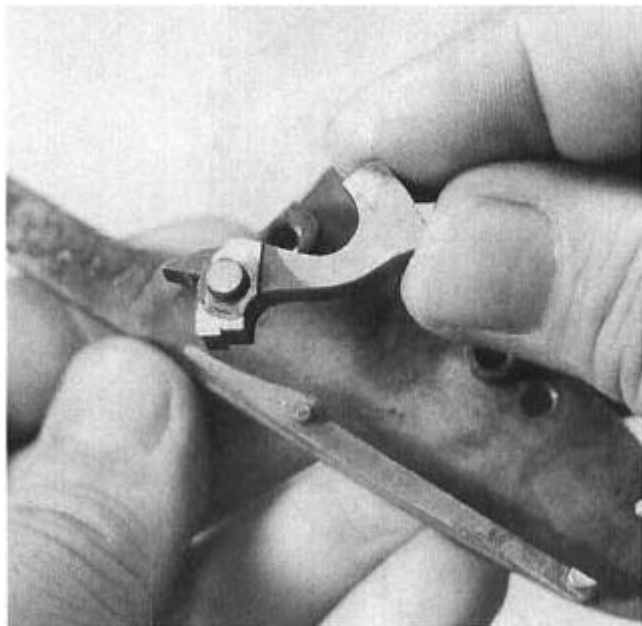
**23.** Remove the two screws that retain the bridle on the lockplate.



**24.** Remove the bridle from its

posts on the lockplate.

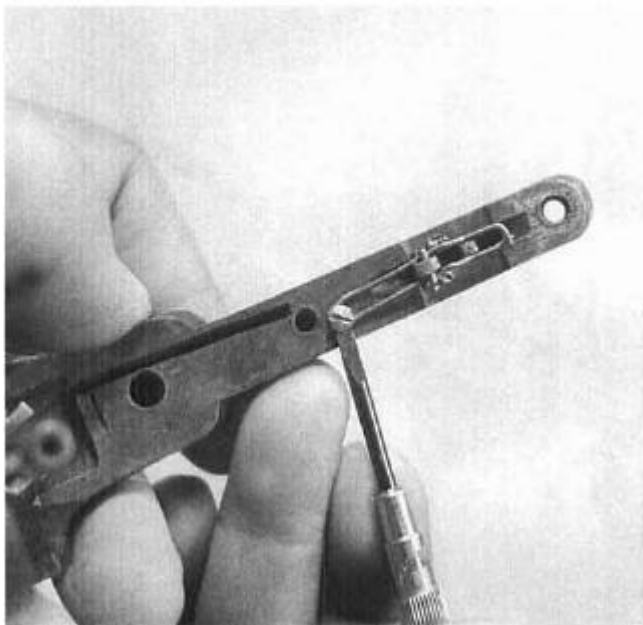
- 25.** Remove the hammer and sear from the lockplate. Note that the pivots will remain in the sear and hammer. Repeat the takedown procedure with the other lock.

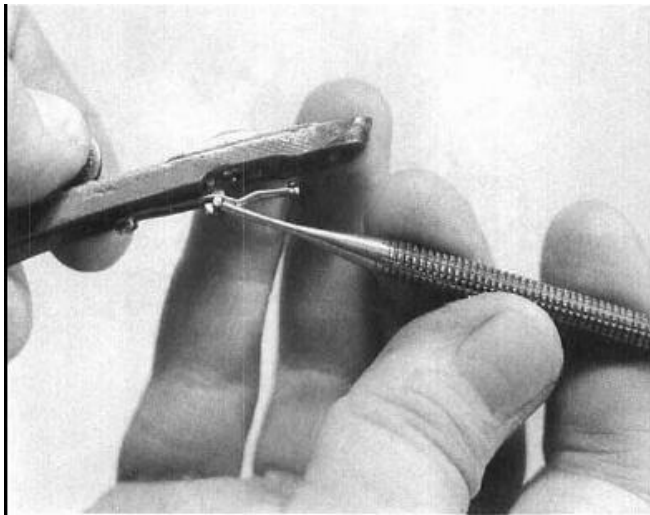


**26.** Remove the screw that retains the safety positioning spring. Note that the one shown is a

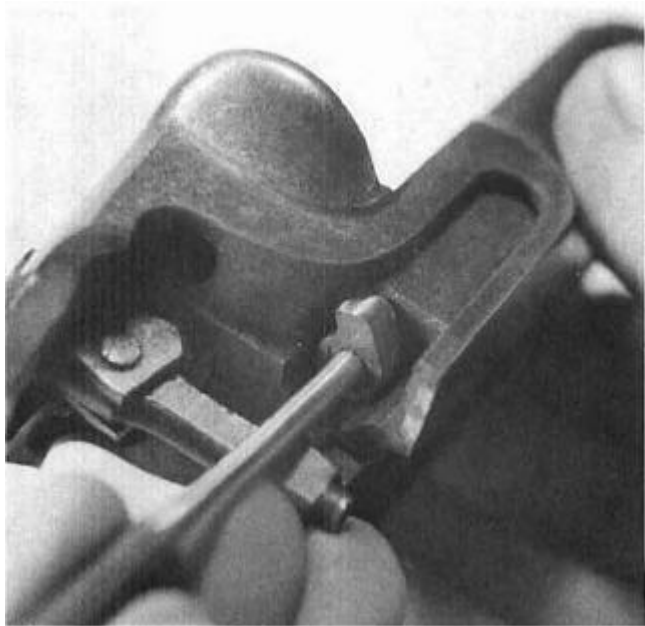


round-wire replacement. The original is a blade type.





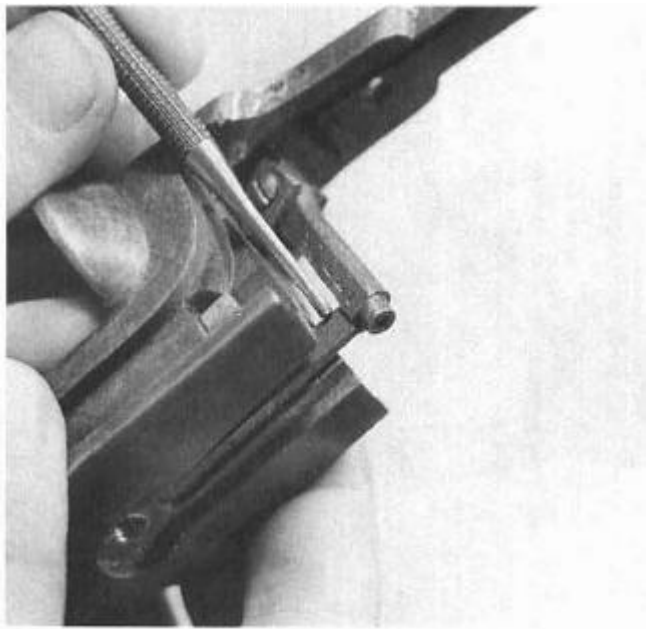
**27.** Drift out the two small cross pins in the lower lug of the safety button, and remove the safety button upward.

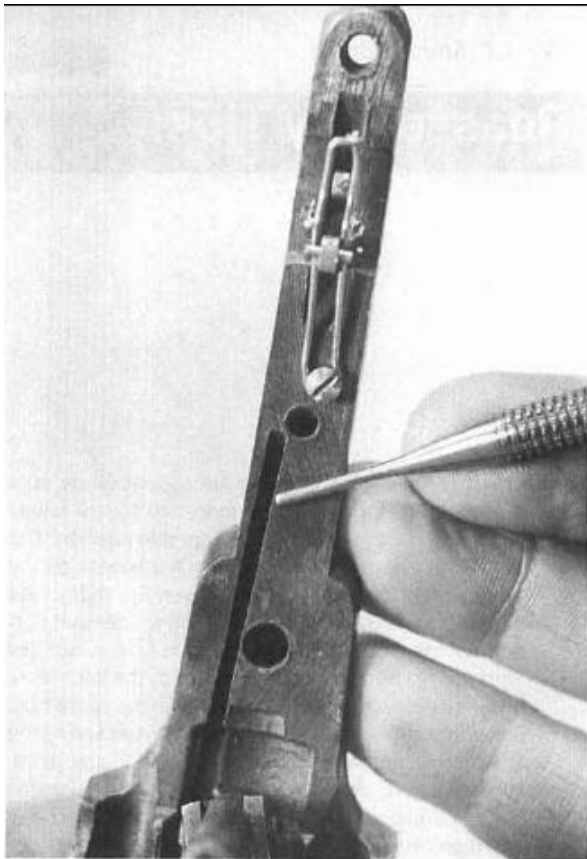


**28.** To remove the cocking levers, the rear tips of the lever rods are drifted forward, out of the

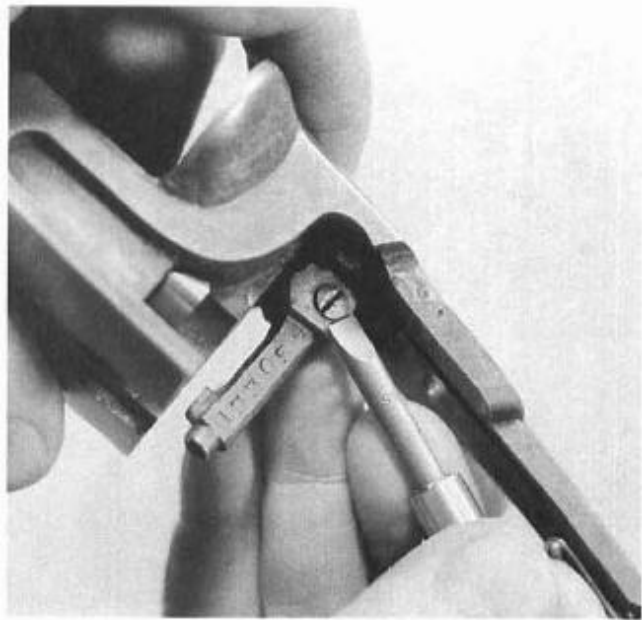
square holes in the lifter lugs at the rear.

- 29.** Use a drift to tap the barrel latch spring downward, out of its recess in the underside of the receiver, and remove it. Caution: This is a heavy spring, and it is under tension, so proceed carefully.





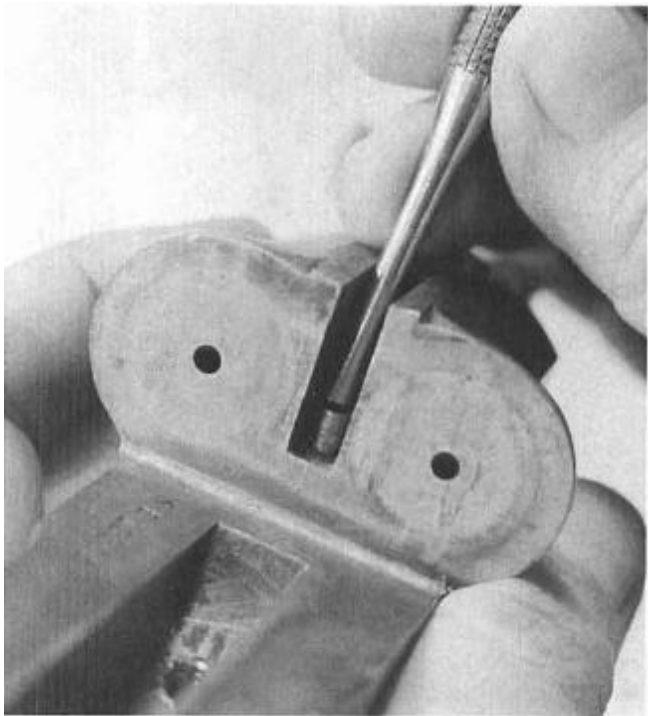
**30.** The automatic safety bar, which pushes the safety to the on-safe position when the action is opened, lies in a recess in the underside of the upper tang. The bar is free to be lifted out when the buttstock is taken off. On the gun shown, the safety bar is missing.



**31.** Turn the barrel latch lever to the opened position, and remove the cross screw in the



barrel latch coupler. Note that this screw is often semi-riveted at its tip, and may be difficult to remove. After the screw is taken out, the latch lever can be removed upward, and the coupler and latch block can be taken out toward the rear.



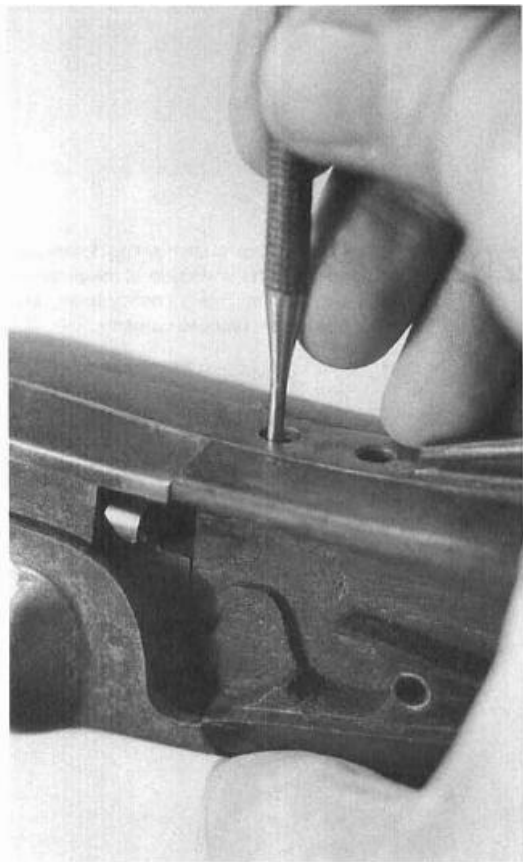
**32.** Removal of the latch block

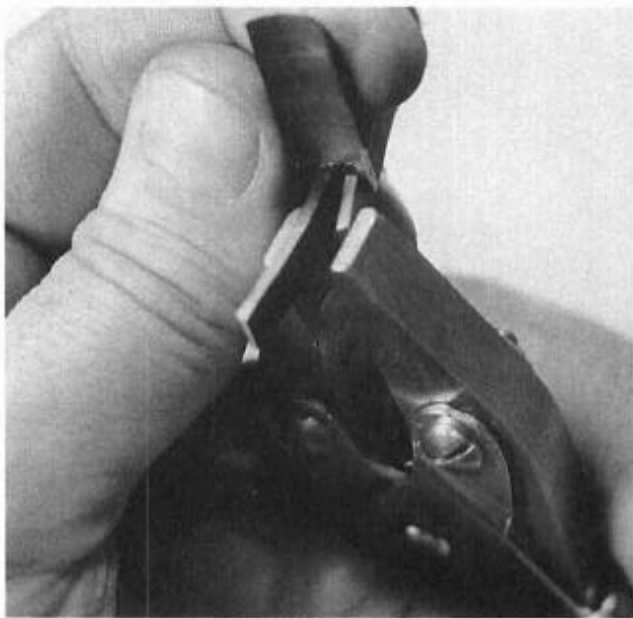
will release the detent plunger and spring in the slot at the front. Restrain the plunger, and take out the plunger and spring upward.

# Reassembly Tips:

1. When replacing the trigger plate assembly, be sure the safety is in the on-safe position, and that the safety lever on the trigger plate is in the on-safe position. The top of the lever must engage with the recess on the underside of the safety button. Insert the rear of the trigger plate assembly first, then swing the front portion up into place. Replace the front screw, but just start it, don't tighten it at this time. With the

latch lever in center position, insert a drift punch in the screw hole in the lower tip of the latch lever shaft, and spring the shaft into alignment with the hole in the trigger plate. When it aligns, press the plate into place, and install the barrel latch screw. The other trigger plate screws can then be replaced.

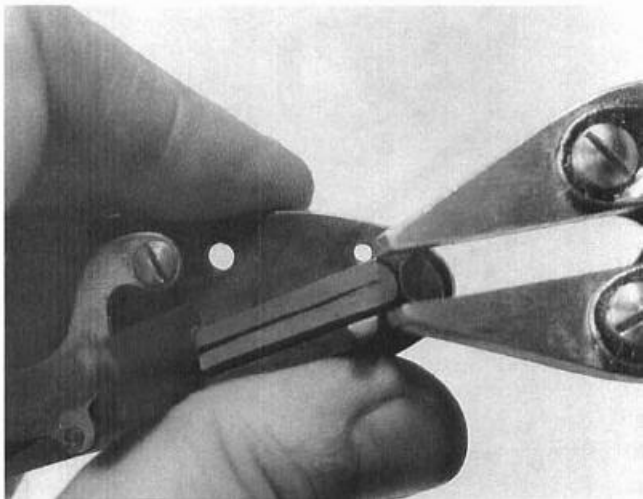




**2.** Replacing the main springs in the locks can be done much more easily if a mainspring

tool is made, as shown. This can be made from any small piece of tough steel. The one shown was made from a broken Poly-Choke leaf. The spring is compressed with pliers, and the tool slid onto the spring to keep it compressed during installation.





3. With the tool in place on the spring, use pliers at the rear, by the stud, to depress the spring below the retaining screw hole, holding it there while the screw is replaced.

The hammer can then be cocked, and the compression tool removed. Before replacing the locks in the receiver, be sure the trigger or triggers are fully forward, and the safety is in the on-safe position.

# Smith & Wesson 916



## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Smith & Wesson 916 also apply to the following guns:

**Noble Model 60**

**Noble Model 60AF**

**Noble Model 66RCLP**

**Noble Model 160**

**Smith & Wesson Model 916T**

**Smith & Wesson Model 96**

**Noble Model 60ACP**

**Noble Model 66CLP**

**Noble Model 66RLP**

**Noble Model 166L**

**Noble Model 66XL**

<b>Data:</b>	Smith & Wesson 916
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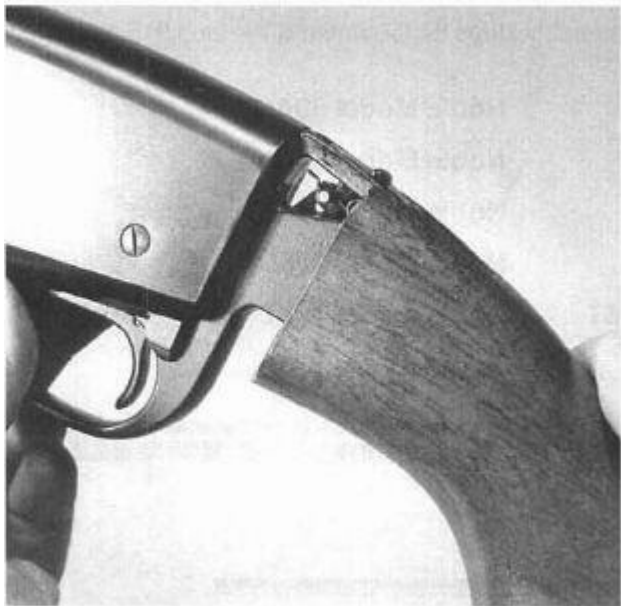
<b>Origin:</b>	United States Smith & Wesson
<b>Manufacturer:</b>	Springfield, Massachusetts
<b>Gauges:</b>	12, and 20
<b>Magazine capacity:</b>	5 rounds
<b>Overall length:</b>	48 inches (with 28-inch barrel)
<b>Barrel length:</b>	20 to 30 inches
<b>Weight:</b>	7-1/4 pounds

This gun had its beginnings in 1952, in Haydenville, Massachusetts, under the Noble name. When the Noble company expired in 1972, Smith & Wesson acquired the design, corrected several troublesome design points, and introduced it as their Model 916 in 1973. It was a good, solid, slide-action gun, and when first offered had a fixed barrel. Later guns had detachable barrels. Except for this difference, the instructions will apply to any Model 916 and, in some areas, to earlier Noble guns. The Model 916 was discontinued in 1984, when Smith & Wesson dropped all shotguns from their line.

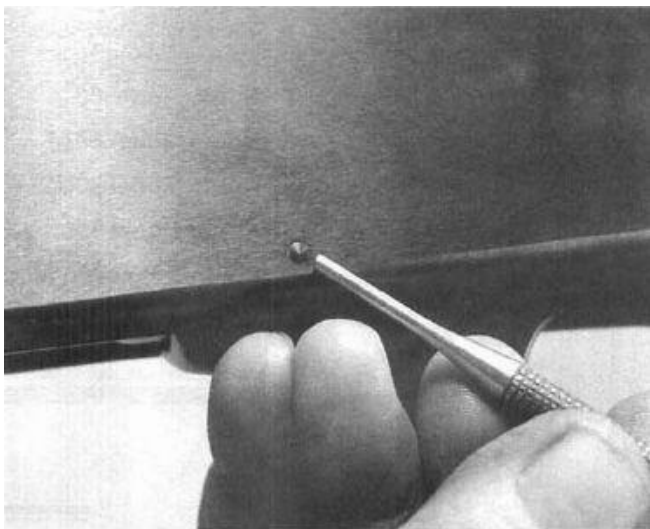
# Disassembly:

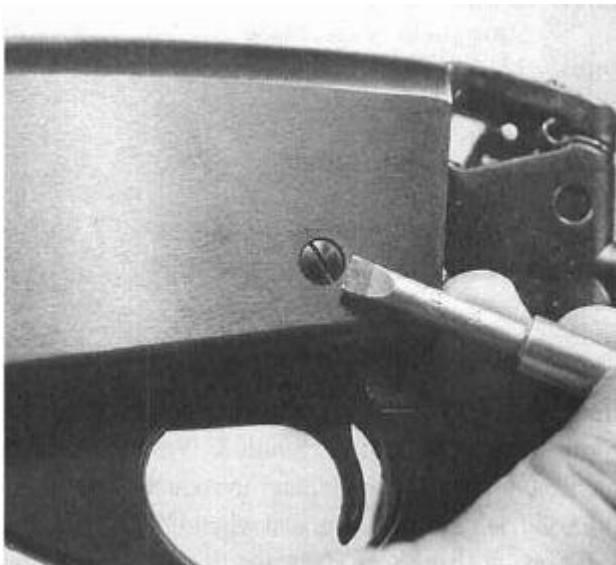
1. Cycle the action to cock the hammer, and set the safety in the on-safe position. Remove the buttplate, and use B-Squarestock tool or a long-shanked screwdriver to back out the stock bolt. Remove the stock bolt, its washer, and the buttstock toward the rear.



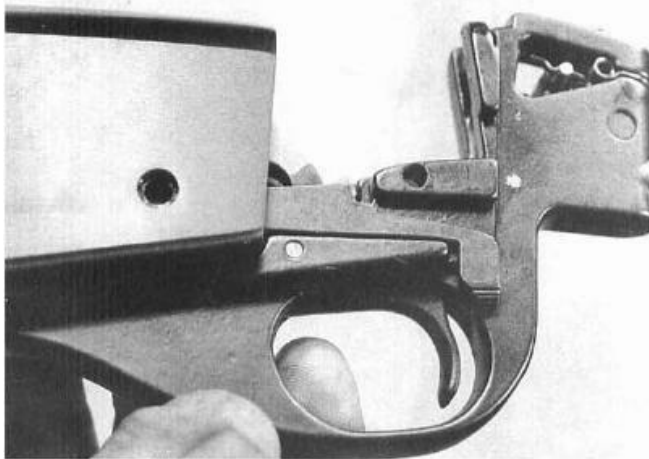


2. Drift out the cross pin above the front of the trigger group at the lower edge of the receiver toward the right.





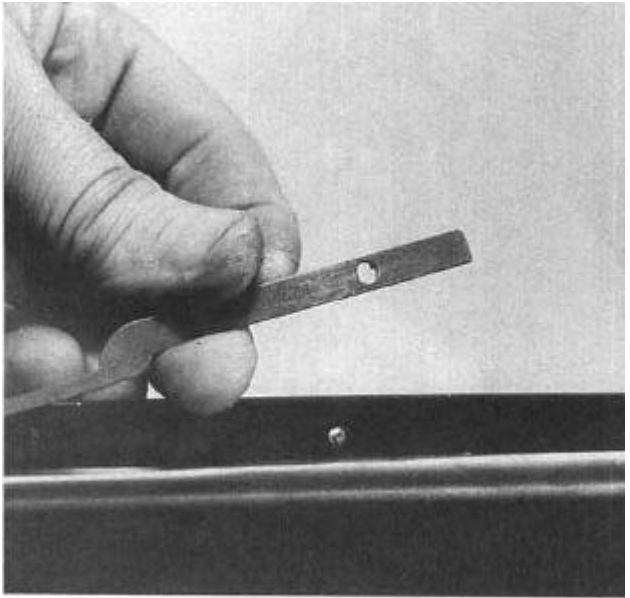
- 3.** Remove the cross screw at the lower rear of the receiver toward the left.



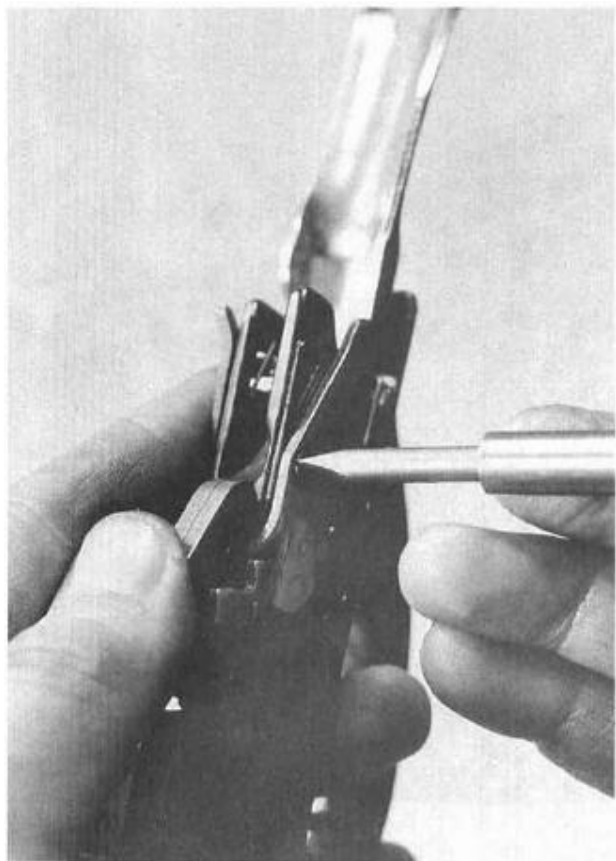
**4.** Move the trigger group straight out toward the rear.

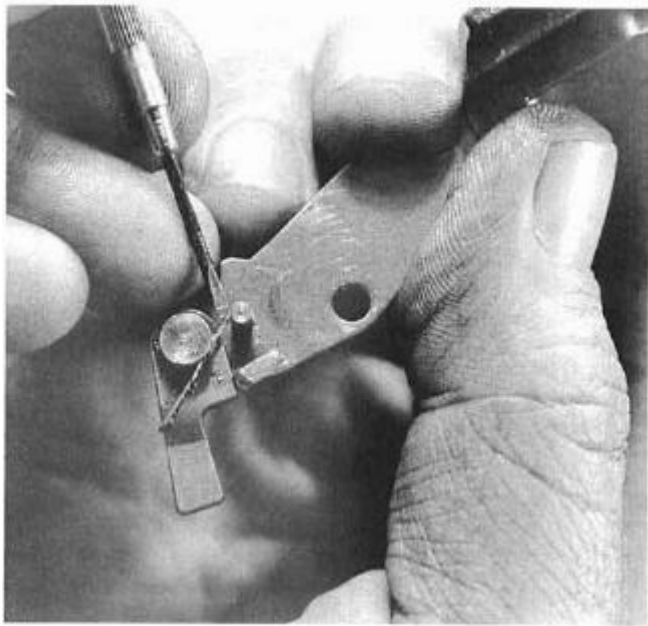
**5.** The shell stop will be released inside the receiver as the

trigger group is removed, and  
can be taken out the bottom of  
the receiver.



6. Remove the carrier pivot screw from the right side of the trigger group, and note that this screw has a reverse thread. Unscrew it clockwise. Remove the carrier toward the right.

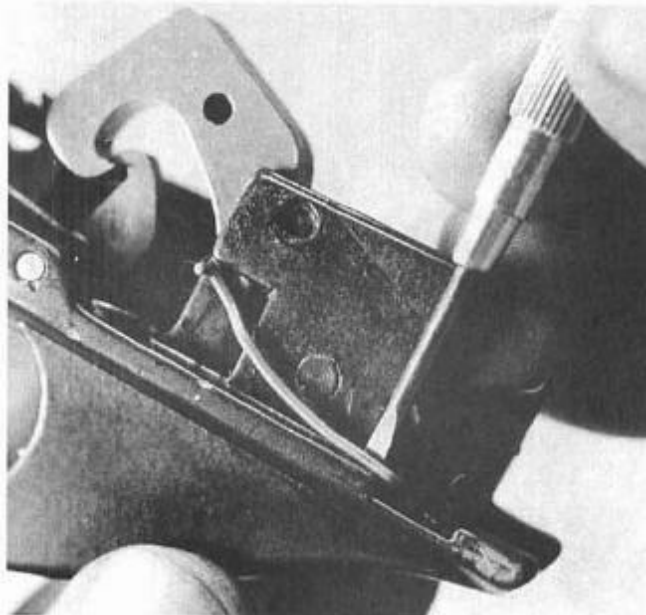




7. The carrier dog is retained on the rear of the carrier by a heavily riveted stud, and is not



removable in normal  
takedown. The carrier dog  
spring can be removed, if  
necessary, by unhooking its  
arms and flexing it over the  
mounting post.



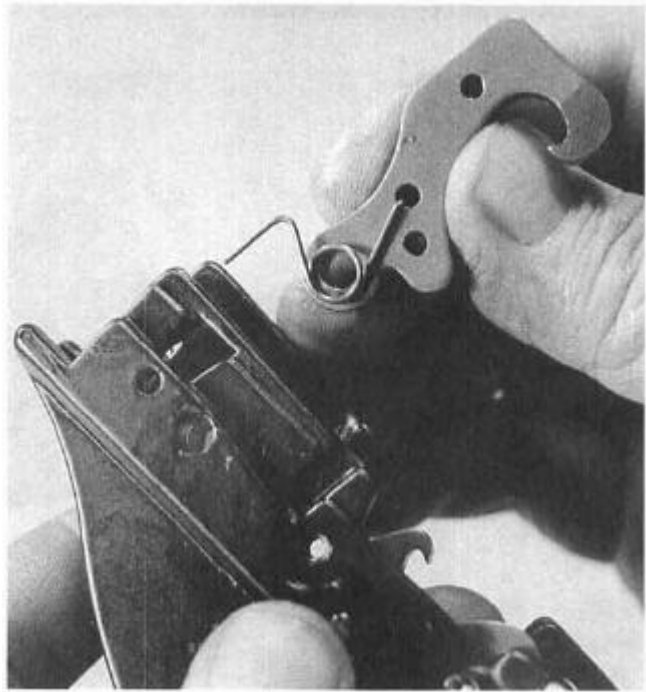
8. Insert a sharp screwdriver behind the front of the carrier spring, and pry it out toward

the right for removal.



- 9.** Remove the slide latch screw on the left side of the housing, and note that this one also has a reverse thread. Unscrew it clockwise.
  
- 10.** Remove the slide latch toward the left, and take out the latch spring upward.





**11.** Move the safety to the off-safe position, restrain the hammer,

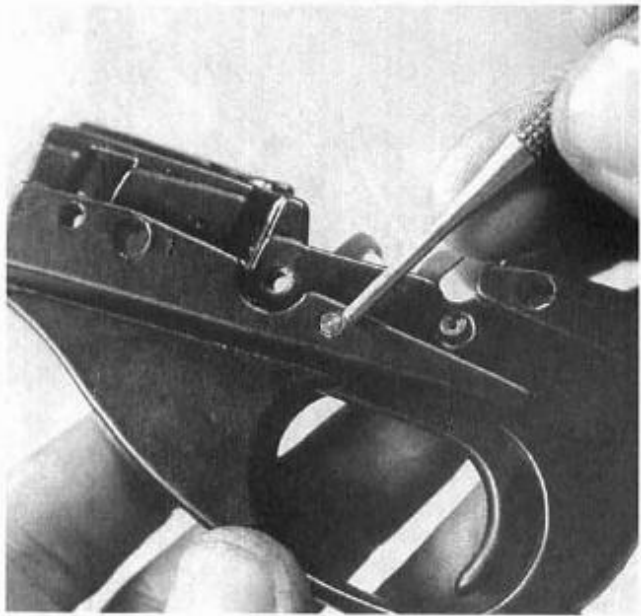
pull the trigger and ease the hammer down to fired position. Drift out the hammer cross pin, and remove the hammer, along with the slide latch release spring, upward. The spring is easily detached.



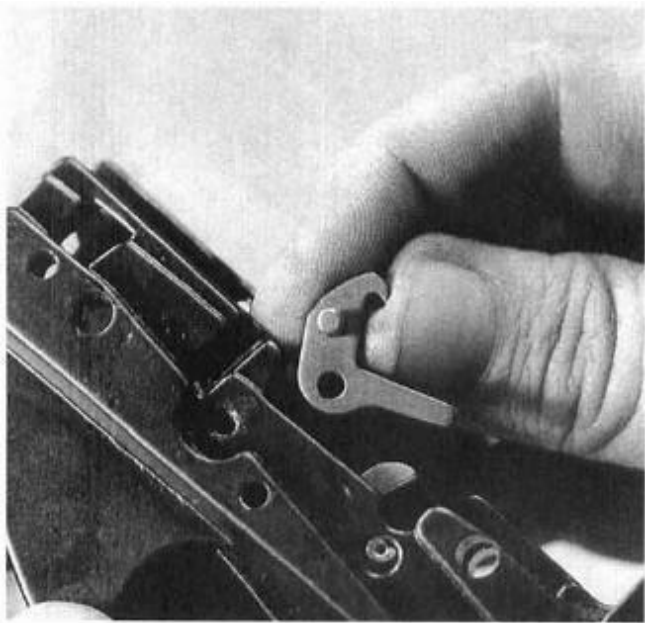


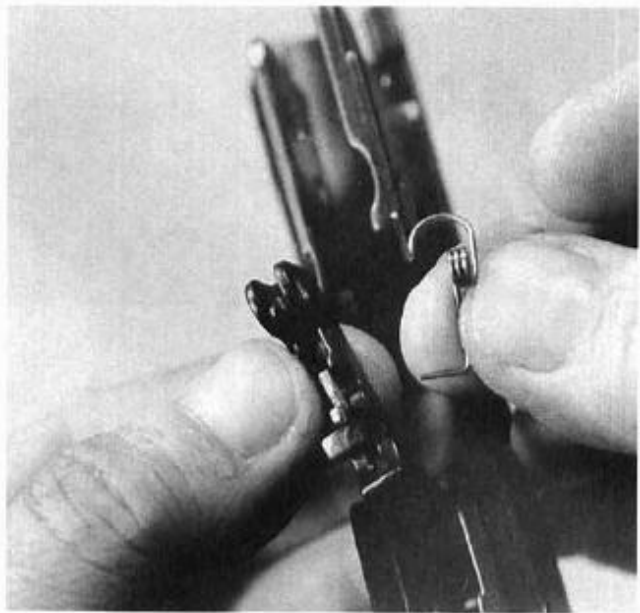
**12.** Remove the hammer spring and plunger upward and toward the front.

**13.** Push the sear cross pin toward the right, just far enough to clear the sear.



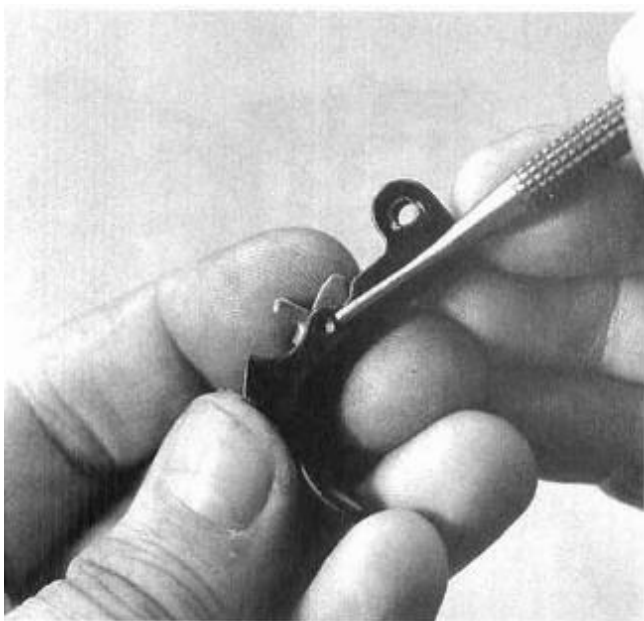
**14.** Remove the sear upward.





**15.** Remove the sear pin toward the right, and take out the trigger and the combination

sear and trigger spring  
upward.



**16.** Drifting out the cross pin in the

trigger will allow the trigger  
detent trip to be removed  
upward.





- 17.** The trigger detent is mounted on a pin that is riveted on the left side of the housing, and should not be removed unless necessary for repair.
  
- 18.** Insert a drift punch through the coil of the safety spring, and lever it out toward the left until the coil clears the side of the housing. Remove the spring toward the right rear.





**19.** Push out the small cross pin in the lower extension of the safety button toward either

side, and remove the safety  
button upward.

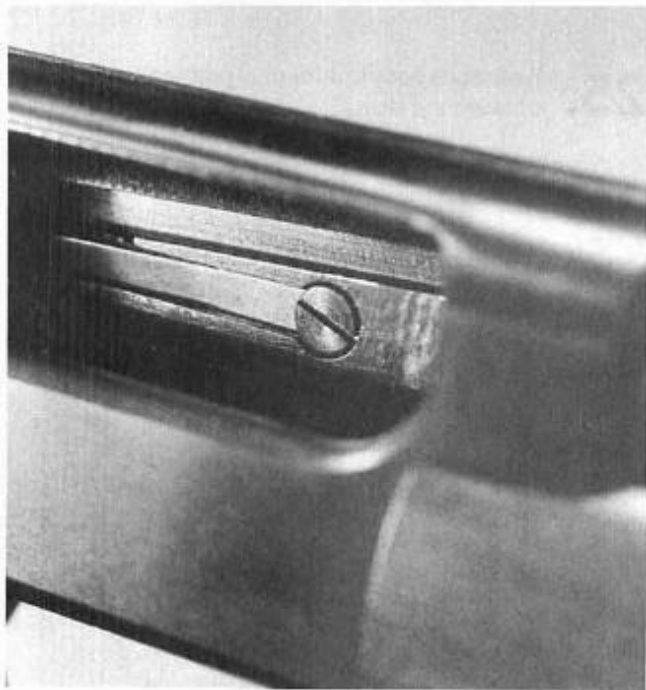


**20.** Drift out the safety lever cross pin toward the left.

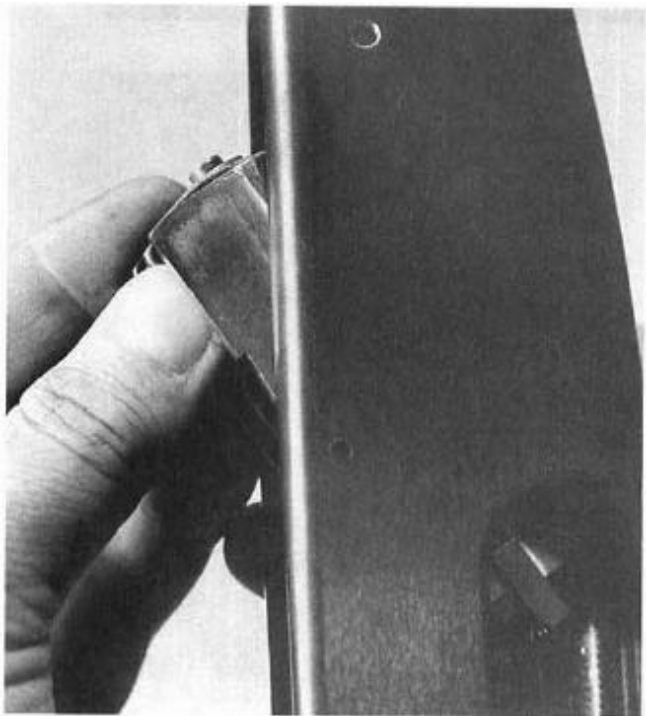
**21.** Remove the safety lever upward.



**22.** Move the bolt and slide assembly to the rear, and insert a screwdriver through the ejection port to remove the ejector screw. Remove the ejector toward the right.

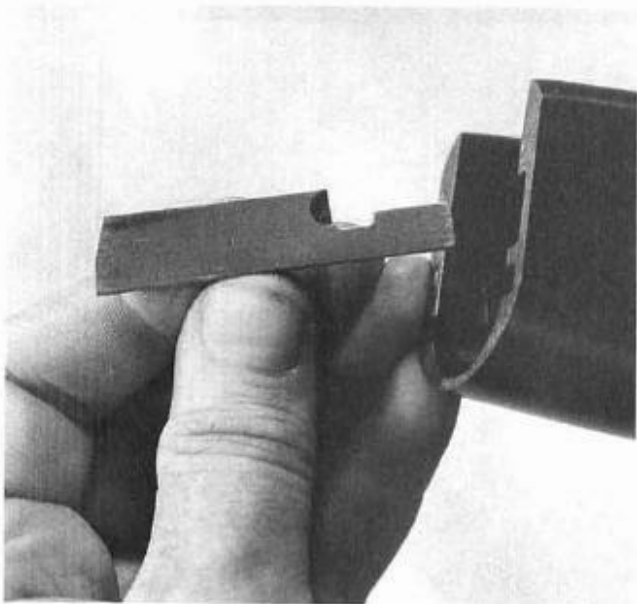






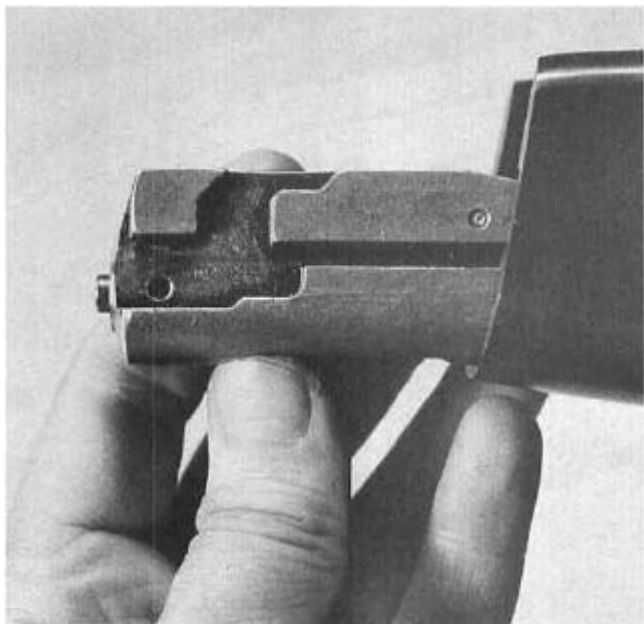
**23.** Move the bolt and slide

assembly toward the rear until the rear edge of the extractor recess is even with the rear edge of the ejection port. Tip the bolt down at the rear, move it forward, and move the action slide toward the rear, disengaging its bar from the bolt. Tip the bolt further, until it is in the position shown.

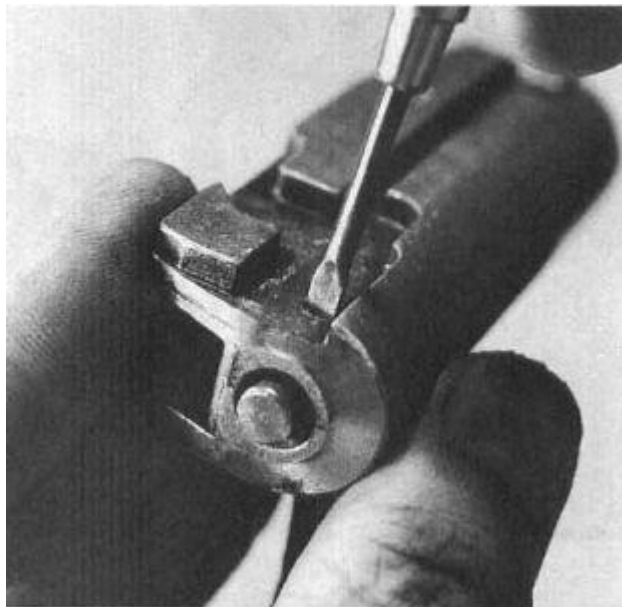


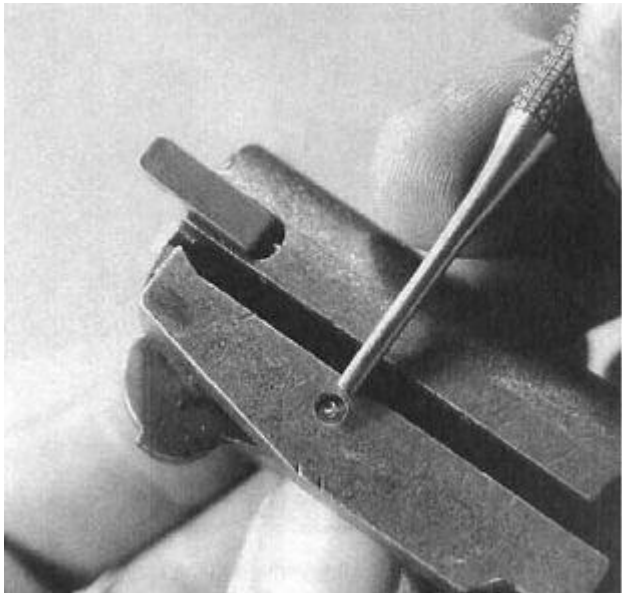
**24.** With the action slide moved to the rear, detach the bolt slide piece inward, and remove it.

**25.** Tip the bolt back to its normal position, and remove it toward the rear.



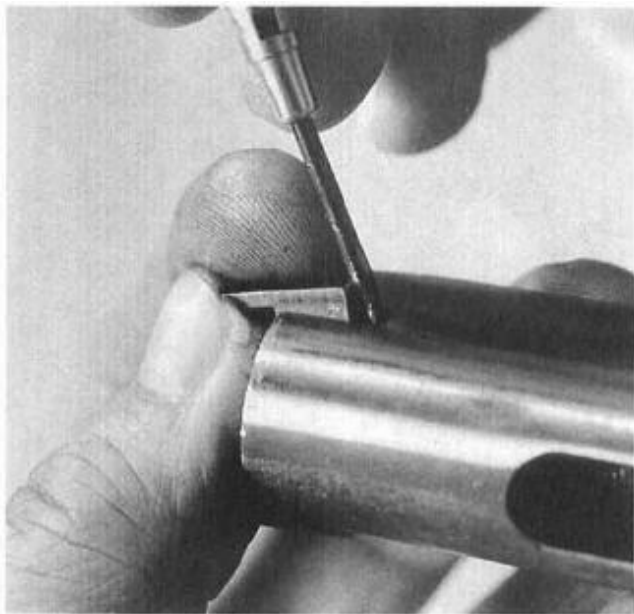
**26.** A cross screw at the rear of the bolt on the left side is backed out to free the firing pin and its return spring for removal toward the rear. Restrain the firing pin as the screw is removed, and ease it out.





**27.** A cross pin near the front of the bolt retains the secondary shell stop and its coil spring, and these are removed

downward after the pin is drifted out toward the right.



**28.** Insert a small screwdriver



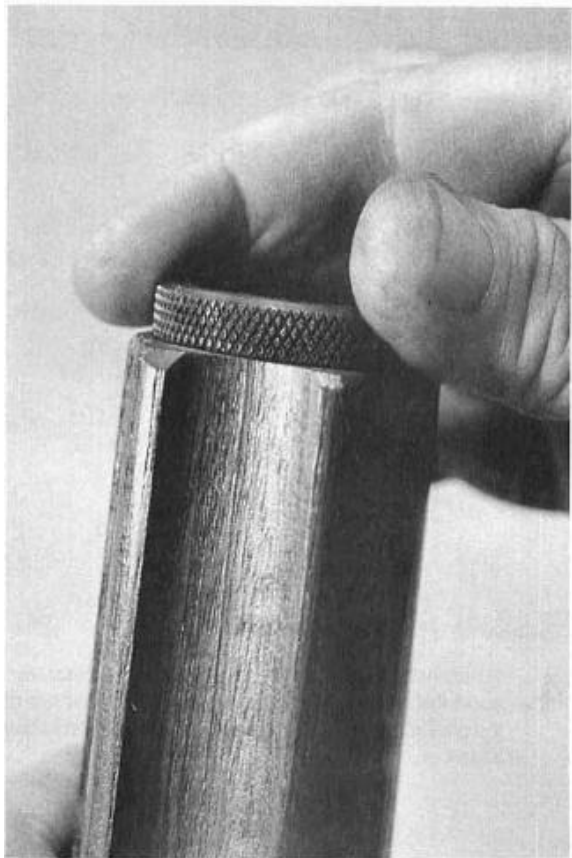
between the extractor and its plunger, and tilt the screwdriver toward the front, forcing the extractor out of its recess. Keep the plunger under control, and ease out the plunger and spring toward the front. Repeat this operation on the opposite extractor.



**29.** Unscrew the knob at the front of the magazine tube. Caution: The magazine spring will be released. Control it, and ease it out. Remove the spring and follower toward the front.

**30.** Remove the magazine tube toward the front.

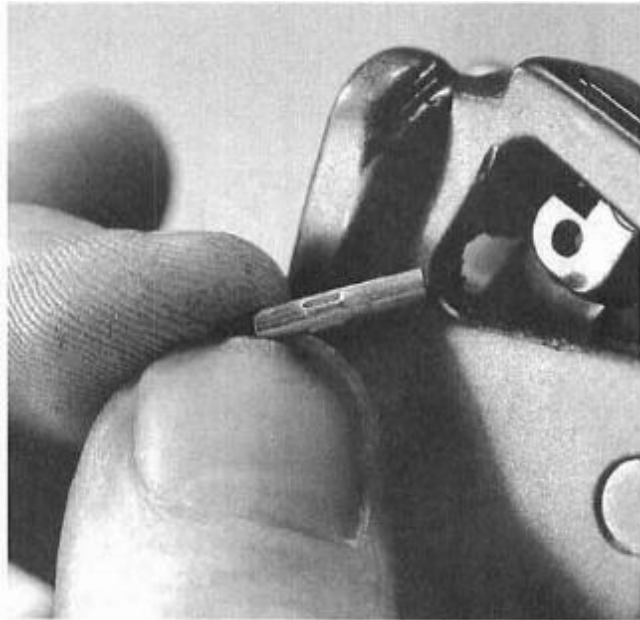




**31.** The action slide and forend assembly is now easily removed toward the front. Unscrewing the knurled nut at the front of the forend will allow the action slide tube and bar to be removed from the forend toward the rear.

# Reassembly Tips:

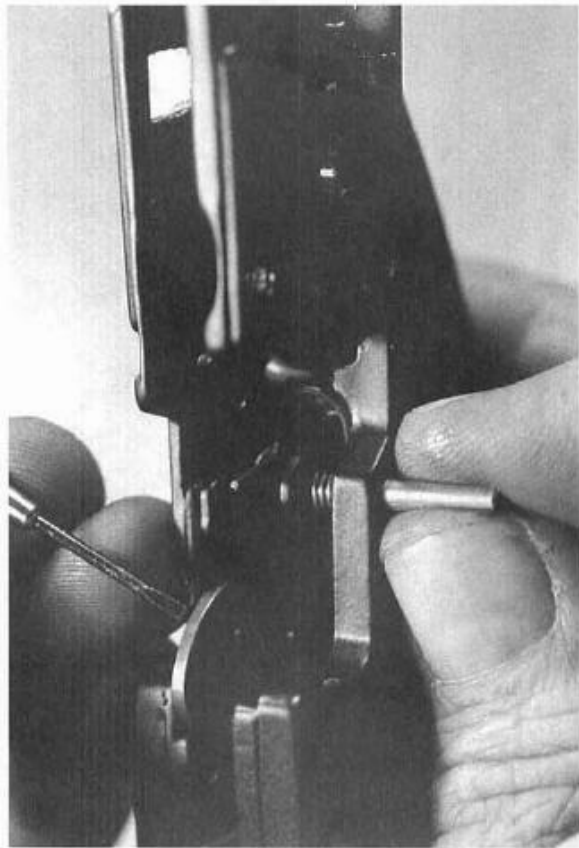
1. When replacing the safety system, note that the safety lever goes on the right, and the lower extension of the safety button on the left. Note that the cross pin is ribbed to grip the button extension, and the ribbing is offset from the center of the pin. The pin must be inserted as shown for proper contact.

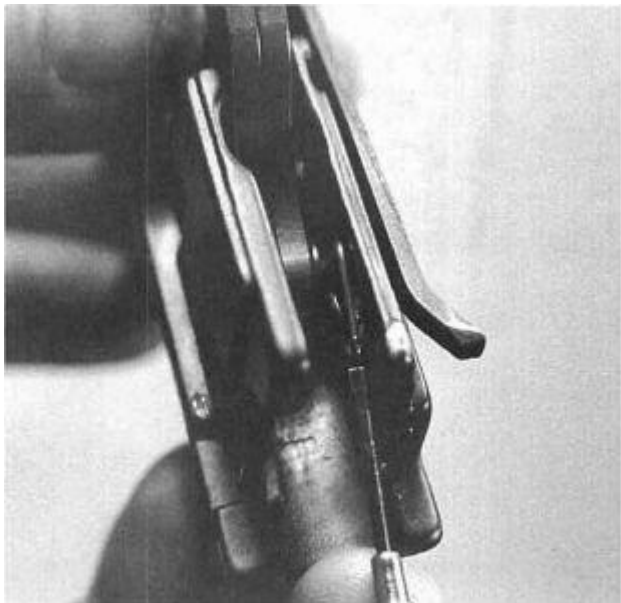


2. When installing the trigger/sear cross pin, be sure the trigger detent is tipped toward the



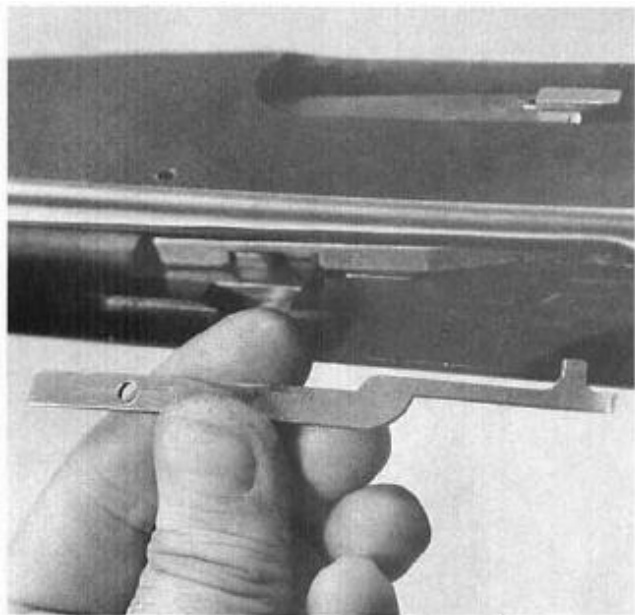
rear, to properly engage the  
detent trip on the trigger.





3. When replacing the slide latch, be sure the front inner projection of the latch goes below the front arm of the

slide latch release spring on the side of the hammer.



**4.** When installing the main shell

stop inside the receiver, open the bolt slightly to insure that the upper tab of the shell stop properly engages its recess in the action slide bar.

**Smith & Wesson**

**1000**



## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Smith & Wesson 1000 also apply to the following gun:

### **Mossberg Model 1000**

**Data:** Smith & Wesson  
Model 1000

**Origin:** United States  
Smith & Wesson

**Manufacturer:** Springfield,  
Massachusetts

**Gauges:** 12, and 20



**Magazine  
capacity:**

3 rounds

**Overall  
length:**

48-1/2 inches  
(with 28-inch  
barrel)

**Barrel length:**

26 to 30 inches

**Weight:**

6-1/2 to 7-1/2  
pounds

The Model 1000 was initially offered, in 1973, in 12-gauge only, with the 20-gauge version arriving about

years later. The gas system of this gun is unlike any other, with a connector ring on the outside of the magazine tube, a cross pin mating it to an internal piston. A heavy valve at the end of the tube compensates for the varying pressures of different loads, and the gas system parts are plated with hard chrome. The gun is relatively uncomplicated, and takedown and reassembly are not difficult. The Model 1000 was discontinued in 1984, when Smith & Wesson dropped their line of shotguns. It was offered briefly (1986-87) by Mossberg as their Model 1000.

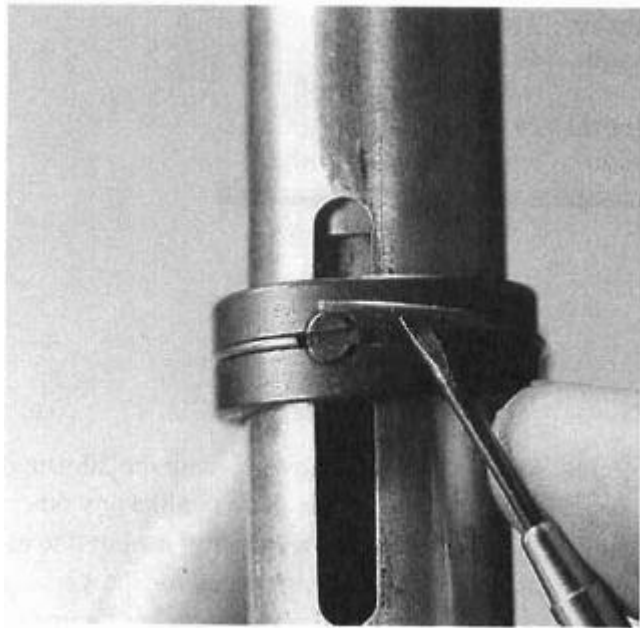
# Disassembly:

1. Pull back the operating handle and lock the bolt in the open position. Set the safety in the on-safe position. Unscrew the forend cap and remove it, and take off the forend. Remove the barrel toward the front.



2. Remove the pressure compensator valve from the front of the magazine tube.





3. Remove the piston connector ring spring from its groove on the outside of the ring, and

take it off toward the front.

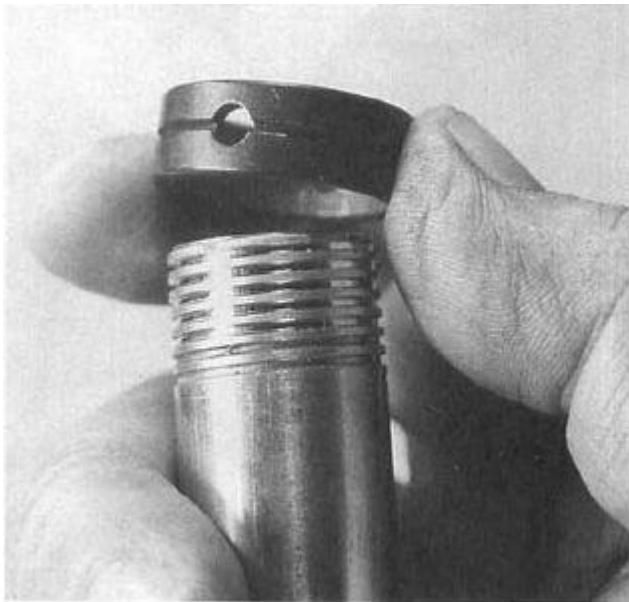


4. Push out and remove the piston connector pin toward either

side.

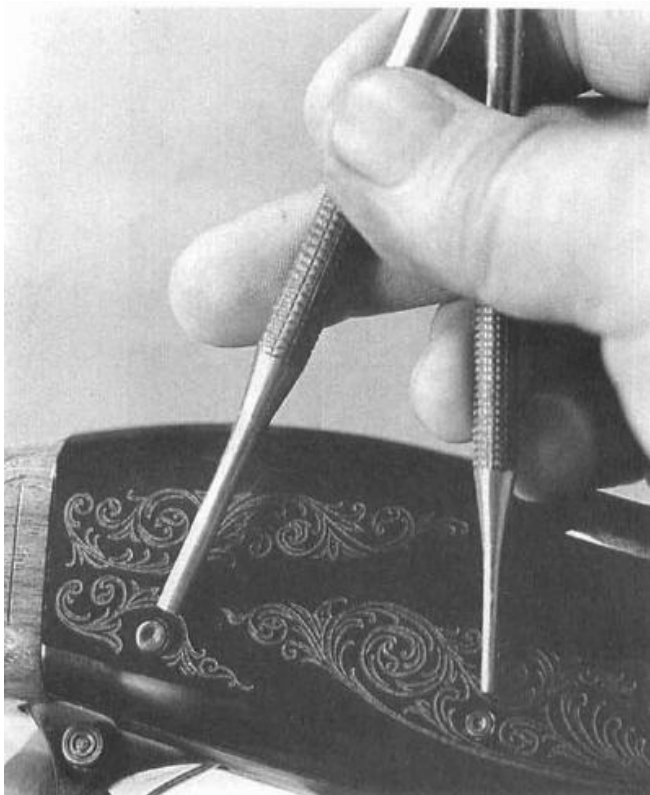
- 5.** Remove the piston connector ring toward the front.





**6.** Remove the piston toward the front.

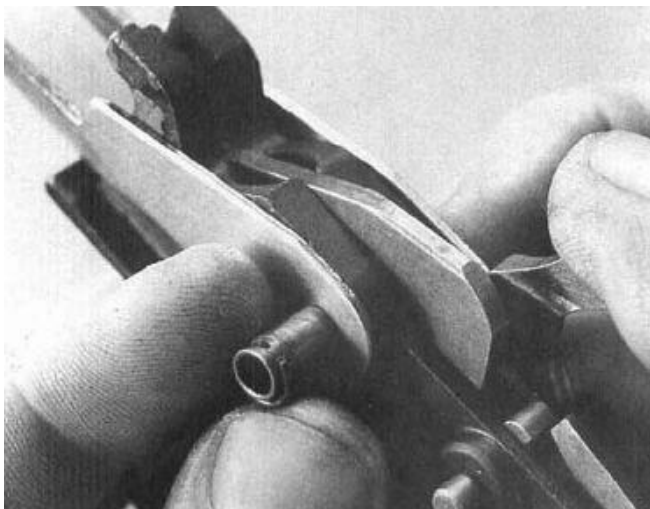




7. Restrain the bolt, depress the carrier release button, and ease the bolt forward to the closed position. Push out the two trigger housing retaining cross pins at the lower rear of the receiver.
  
8. Remove the trigger group downward.



- 9.** Restrain the carrier, and push out the carrier pivot toward the left.



- 10.** Move the carrier upward at the rear, then remove it toward the

front. Take out the carrier plunger and spring from their hole on the right side of the housing. The carrier dog is mounted on the right rear wing of the carrier by a heavily-riveted cross pin, and is not removed in normal takedown. If removal is necessary for repair, the pin must be driven out toward the right. Note that there is a small guide pin inside the carrier spring, and take care that it isn't lost.

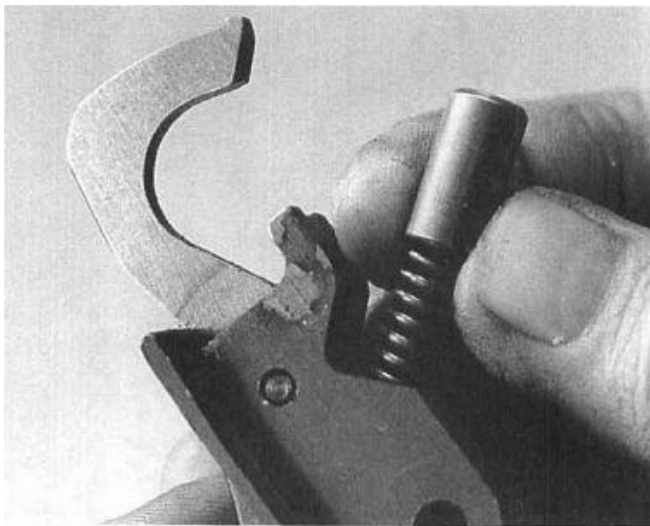


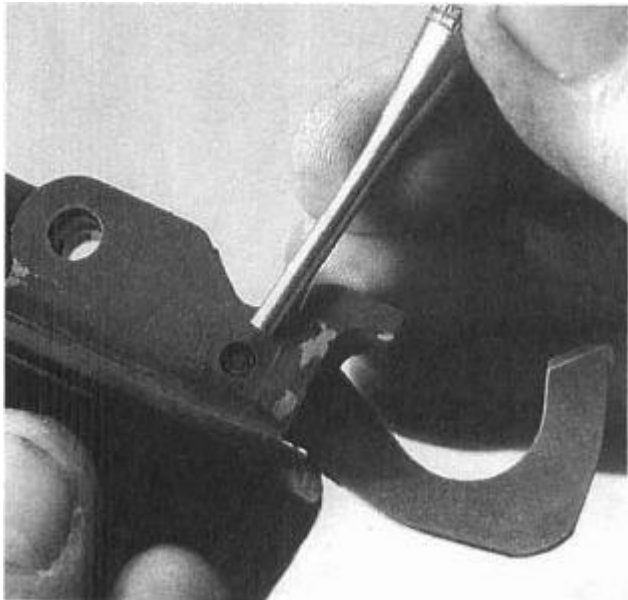


**11.** Move the safety to the off-safe position, restrain the hammer, tip the auto safety (arrow) forward, and pull the trigger. Ease the hammer down to the fired position.



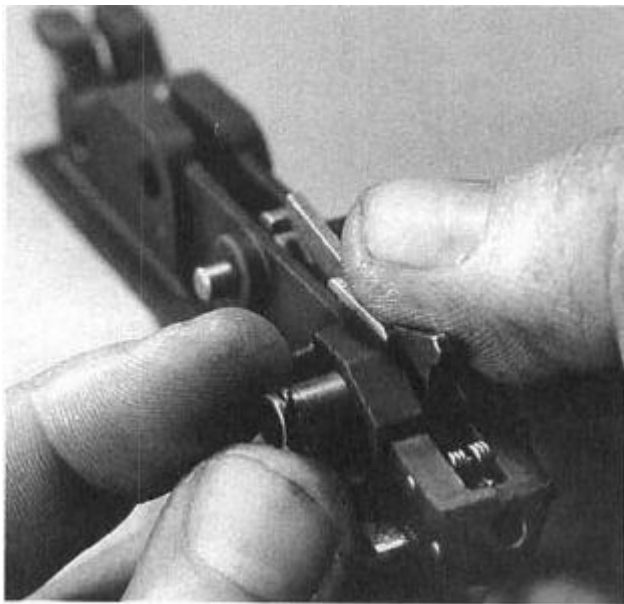
**12.** With the hammer pivoted all the way over toward the front, the hammer spring and plunger can be lifted out of their well in the housing and removed.



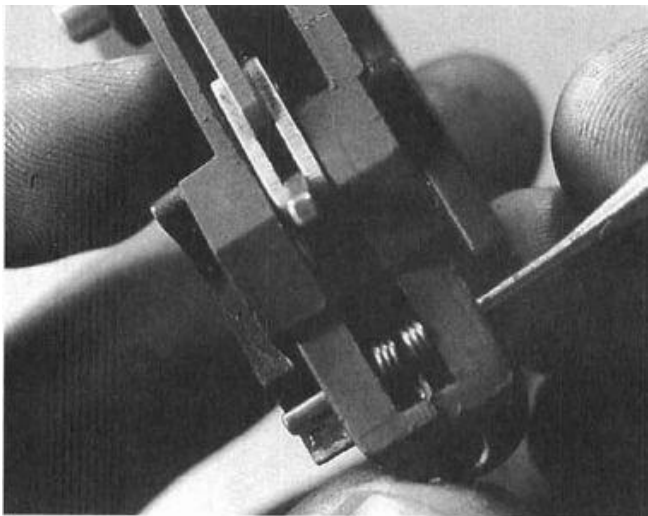


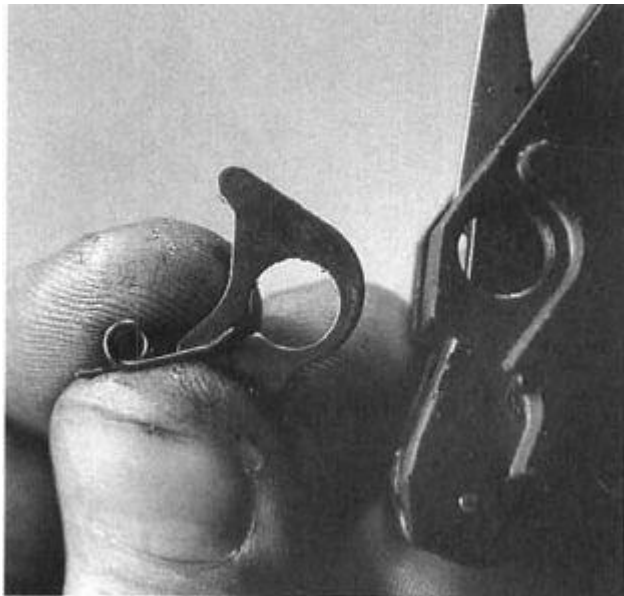
**13.** Drift out the hammer cross pin toward the left, and remove the hammer.

**14.** Push out the rear cross pin sleeve toward the left. Note that the sleeve is also the pivot for the auto safety.



**15.** Push the auto safety downward and toward the front, partially relieving the tension of its spring, and push out the small cross pin that retains the auto safety spring.

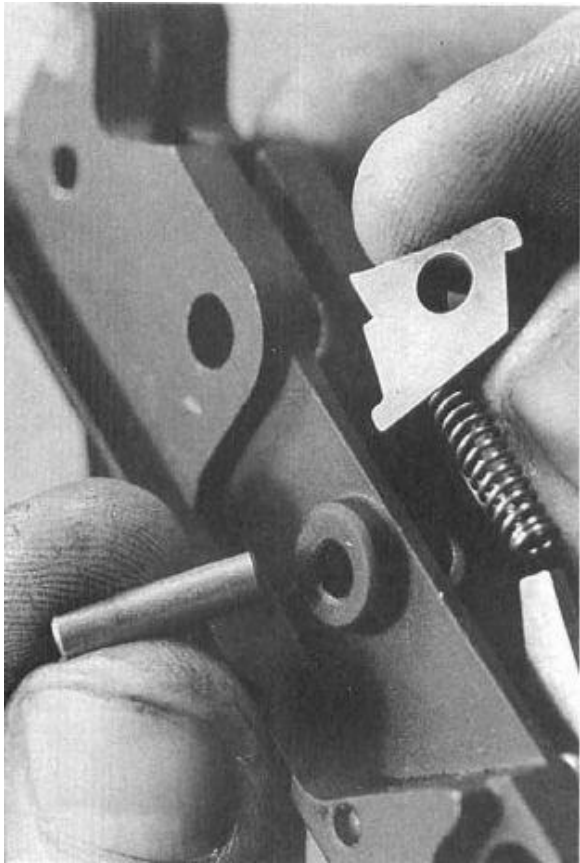




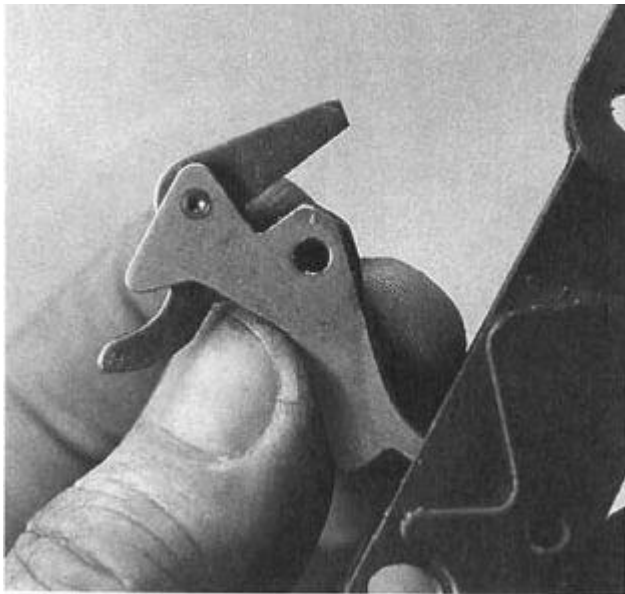
**16.** The sear pin is easily pulled out toward the left, and the sear is removed forward and upward, along with its spring.

**17.** The sear pin is easily pulled out toward the left, and the sear is removed forward and upward, along with its spring.



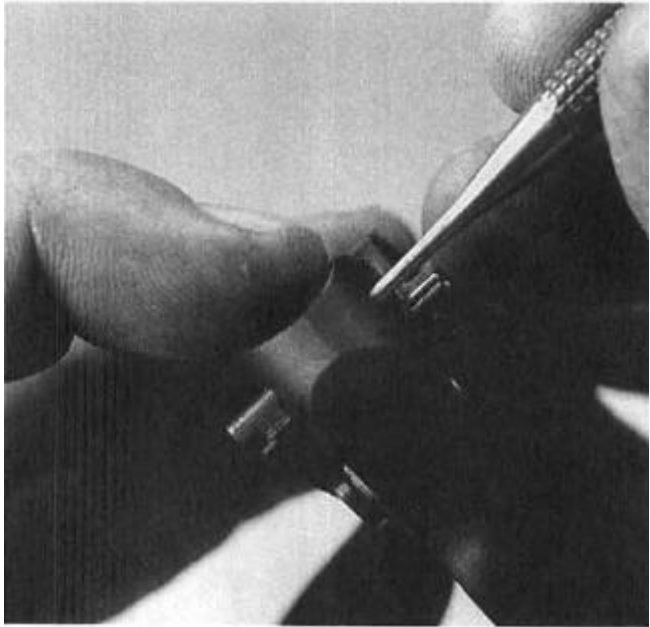


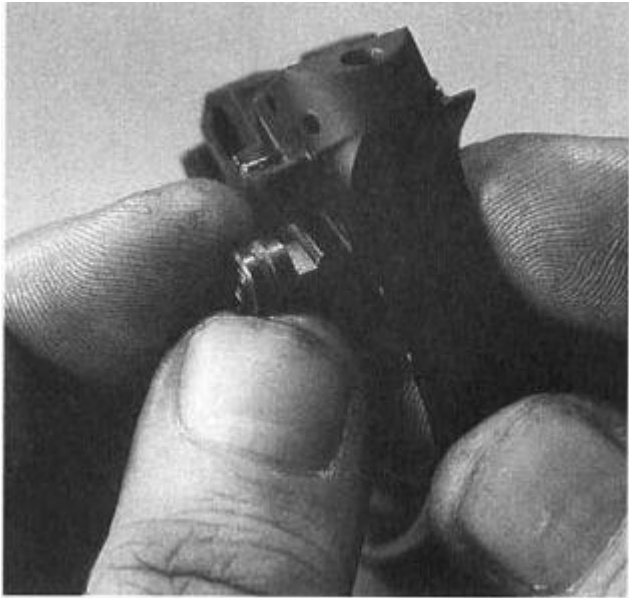
**18.** Push out the trigger cross pin, and remove the trigger upward. The connector is mounted in the trigger by a heavily-riveted cross pin, and this is not removed in normal takedown.



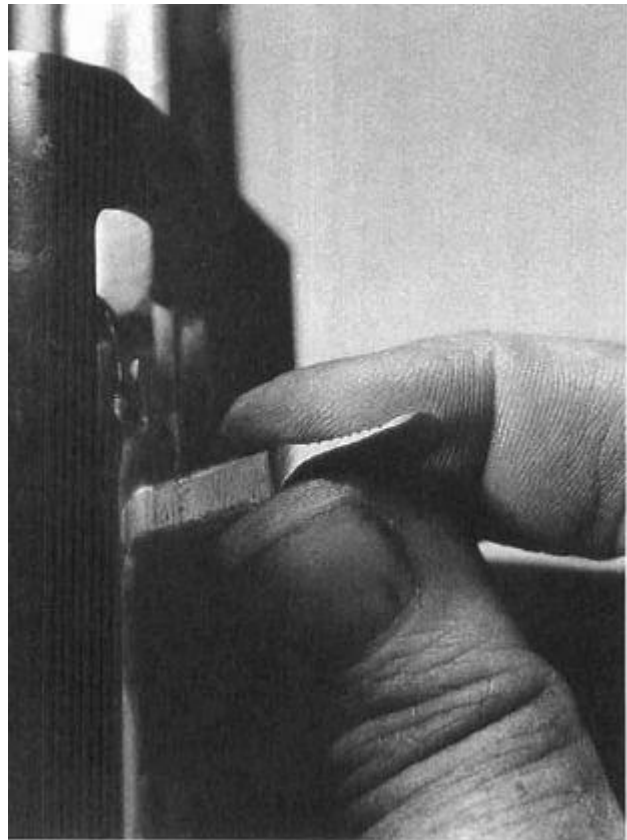
**19.** Push out the small cross pin at the extreme rear of the housing, holding a fingertip over the hole at the upper rear

to arrest the safety spring.  
Remove the spring and  
plunger upward.





**20.** Remove the safety button toward either side.



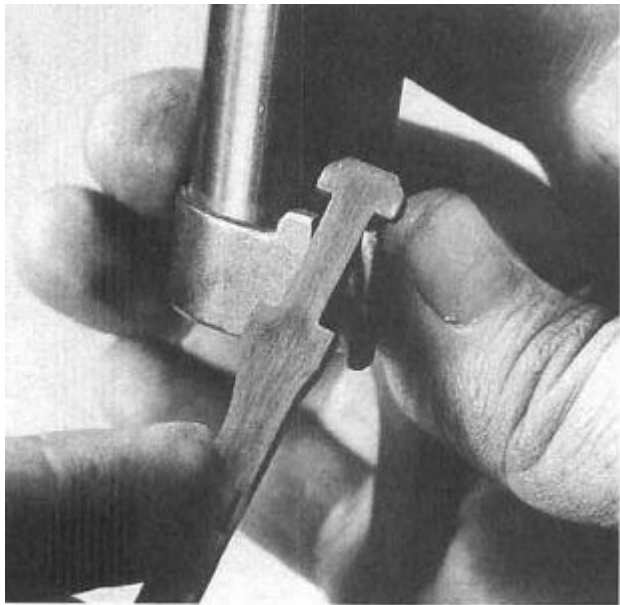
**21.** Grip the operating handle firmly and pull it straight out toward the right.

**22.** Remove the slide and bolt assembly toward the front, and detach the bolt and slide piece from the slide bars.





**23.** The action slide bars are easily detached from the slide tube by swinging them outward, then unhooking them toward the front.

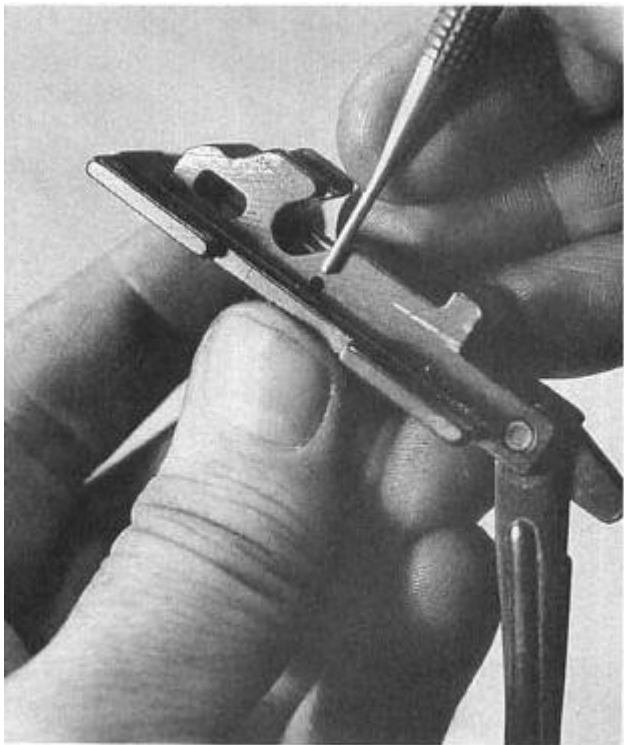


**24.** The bolt is easily detached from the slide piece.



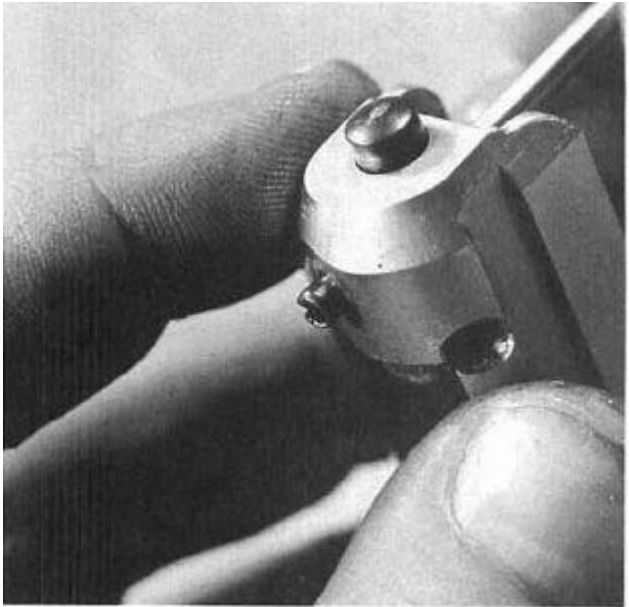
**25.** The large cross pin at the rear of the slide piece can be

pushed out in either direction to free the link bars at the rear. A small cross pin at the center of the slide piece is drifted out toward the right to free the operating handle retaining plunger and spring. Caution: This is a strong spring, so restrain the plunger and ease it out.



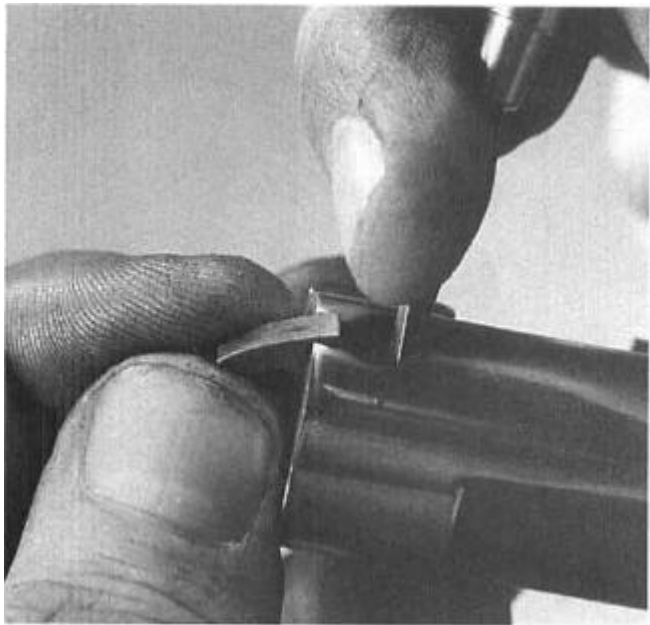
**26.** Drift out the large vertical roll

pin at the rear of the bolt, and remove the firing pin and its return spring toward the rear.





**27.** Tip the locking block upward at the front, and remove it.



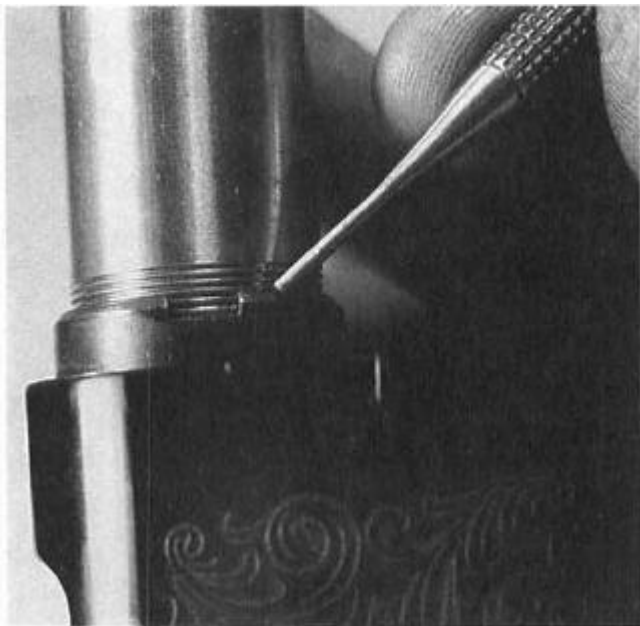
**28.** Insert a small screwdriver between the extractor and its plunger, depress the plunger



toward the rear, and lift the extractor out of its recess. Keep the plunger under control, ease it out, and remove the plunger and spring toward the front.

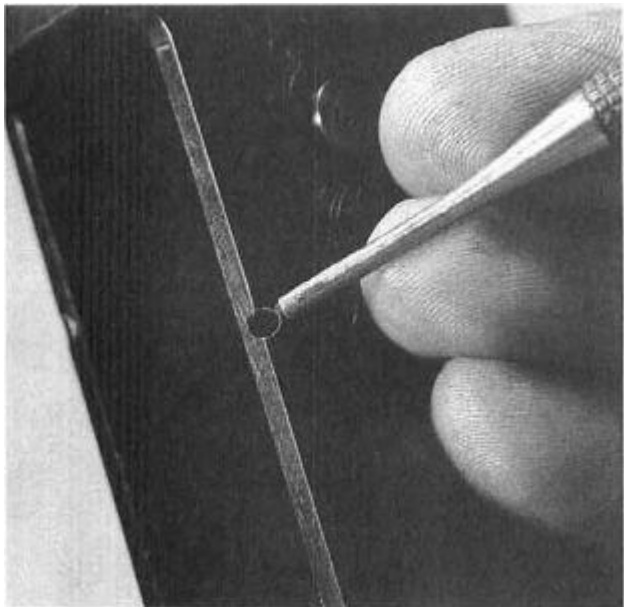
- 29.** It is possible to spring the magazine spring retaining washer out of its detent holes at the front, allowing removal of the spring and follower. Unless necessary for repair, though, this system is best left in place. If removal of the magazine tube is necessary, unscrew the tube retaining nut

at the base of the tube, and unscrew the tube from the receiver. The capacity reducing pin, which serves the same purpose as a plug, can be removed by driving it out toward the right.



**30.** The carrier release on the left side and the shell stop on the right side are retained by

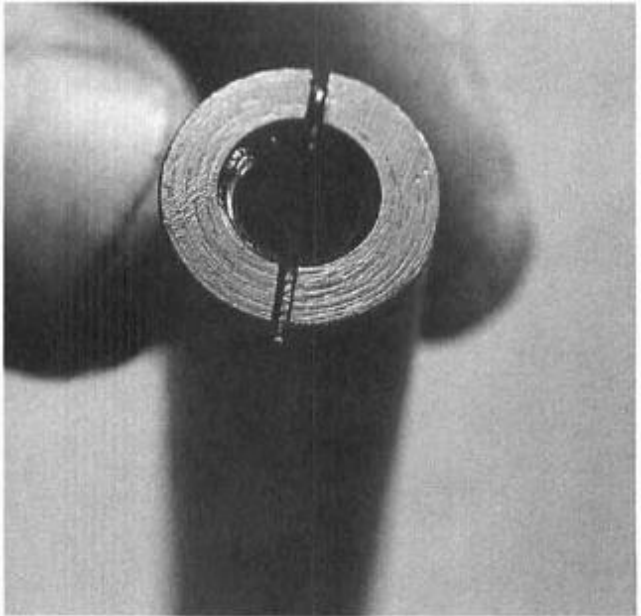
vertical pins in the receiver walls. The pins are retained by small spring clips set in narrow recesses, just inside the lower edge of the receiver on each side. The clips are slid out toward the rear, and the pins are drifted out upward to free the parts for removal, along with their attendant springs.





**31.** Remove the buttplate, and use a screwdriver with a wide, thin blade or a socket wrench of proper size to back out and

remove the stock mounting  
bolt and its captive washers.  
Remove the stock toward the  
rear.

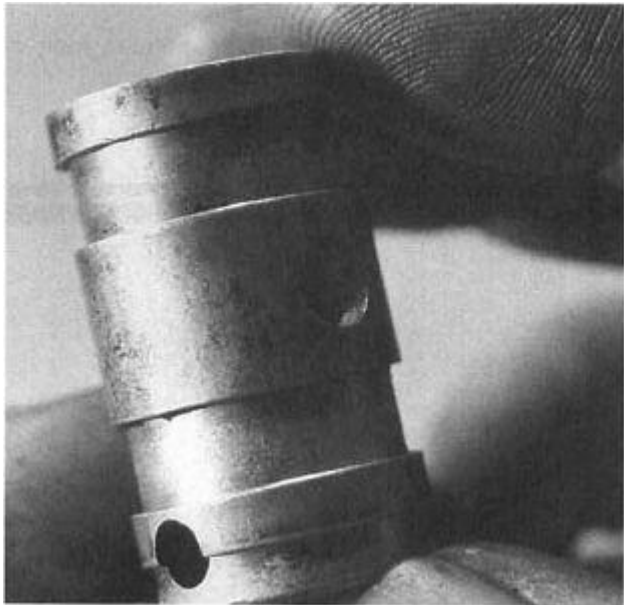


**32.** A screwdriver with a wide, thin blade is required to remove the plug screw at the rear of the action spring housing. Caution: The spring is under tension. Take out the spring and follower toward the rear. The spring housing is also removable by backing off the nut at the rear of the receiver and unscrewing the tube, but in normal takedown this is best left in place.



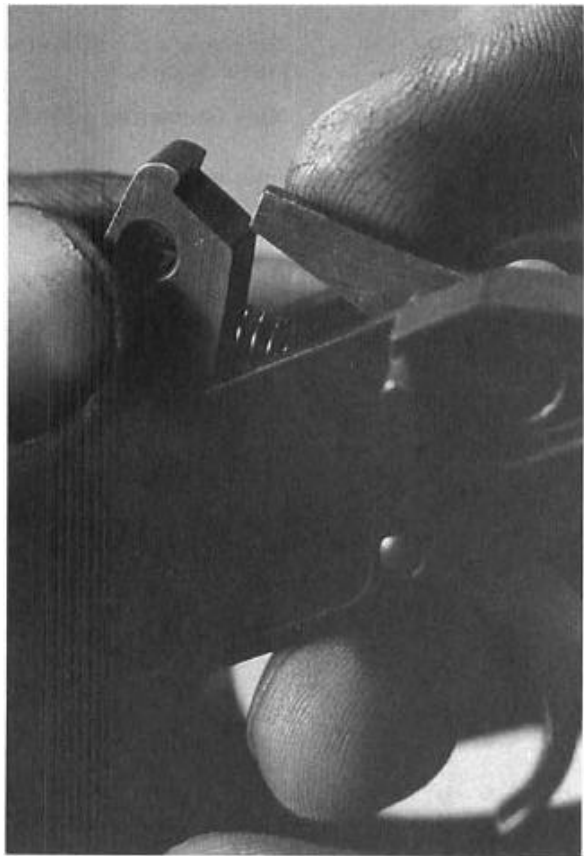
# Reassembly Tips:

1. When replacing the piston, note that the smaller hole goes at the rear, and the large hole at the front must be oriented vertically.



2. When installing the combination sear and trigger spring, be sure the rear tip of the spring is engaged with the stud on the

trigger connector before the  
sear is moved down into  
place.





3. When replacing the trigger group, insert the rear end first to insure that the auto safety properly contacts the action spring assembly, and depress the carrier latch as the front of the trigger group is moved into place for replacement of the cross pins. Also, retract the bolt slightly during final seating of the trigger group, as added insurance that the auto safety is properly engaged.

When replacing the safety button, be sure the plunger contact area is oriented

toward the plunger at the upper rear (see step [20](#)).

# Snake Charmer II





## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Snake Charmer II also apply to the following guns:

### **New Generation Snake Charmer Snake Charmer**

**Data:** Snake Charmer II

**Origin:** United States

Sporting Arms

**Manufacturer:** Mfg., Inc  
Littlefield, Texas

**Gauges:** 410

**Overall  
length:** 28-5/8 inches

**Barrel length:** 18-1/4 inches

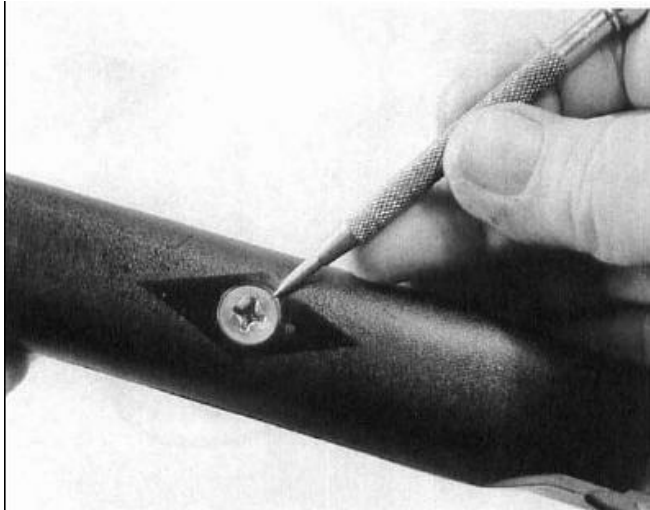
**Weight:** 3-1/2 pounds

The original Snake Charmer was designed by Homer Koon and made by his company in Dallas, Texas. The company was later purchased by Sporting Arms Manufacturing, and moved to Littlefield, Texas. In 1989, the new firm introduced Snake Charmer **11**, the main difference being the addition of a hammer-block manual safety. A more recent addition is the New Generation Snake Charmer, which has a black

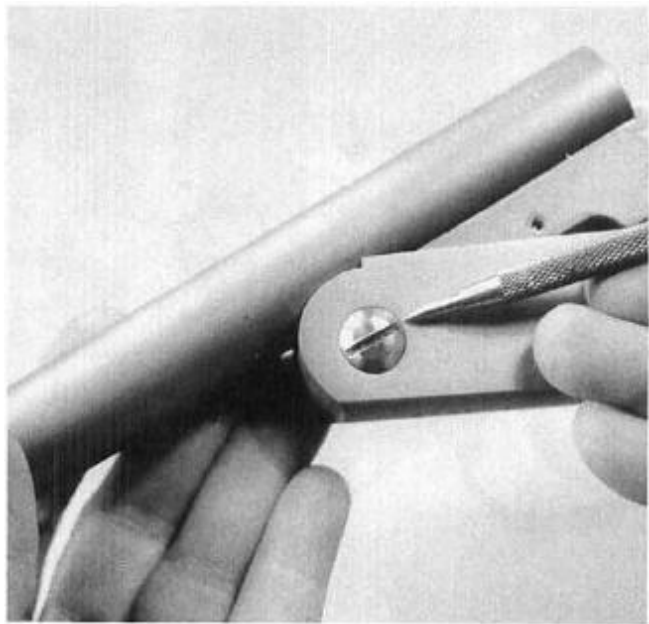
carbon steel barrel.

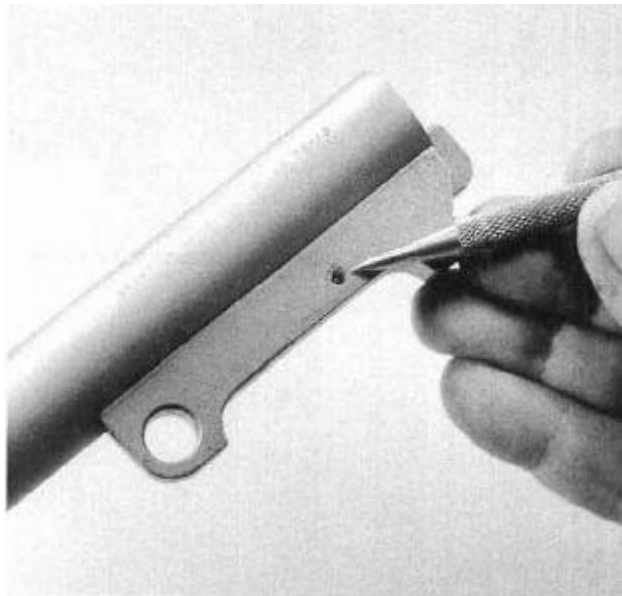
# Disassembly:

1. Remove the large Phillips screw on the underside of the forend, and take off the forend downward.



2. Open the action, and remove the barrel pivot screw. Remove the barrel unit upward.





- 3.** The ejector is retained by a roll-type cross pin. Restrain the ejector when the pin is drifted out, and remove the ejector



and its strong spring toward the rear.



4. Drift out the small pin just forward of the trigger pivot toward the right.

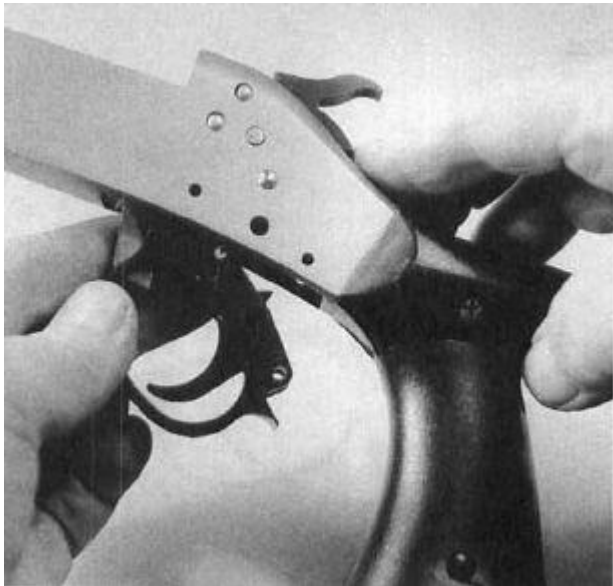
**5.** Drift out the small rear cross pin toward the right.



**6.** Drift out the trigger cross pin

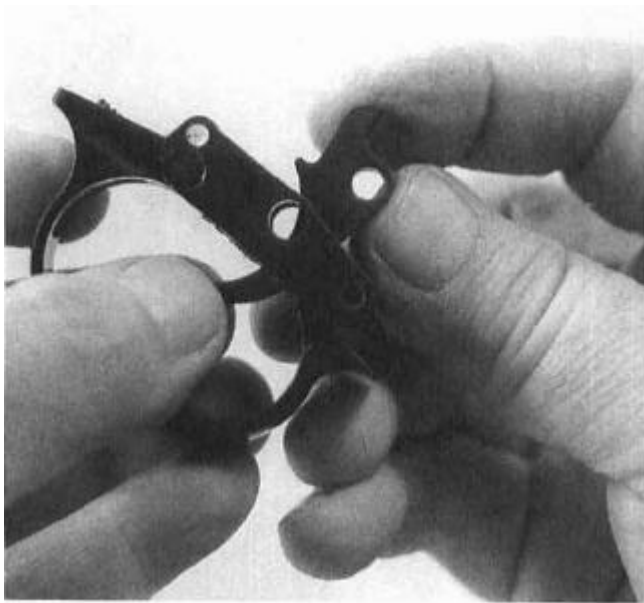
toward the right. Note that the larger cross pins in the receiver are splined at the right tip, and all must be driven out toward the right to avoid damage.





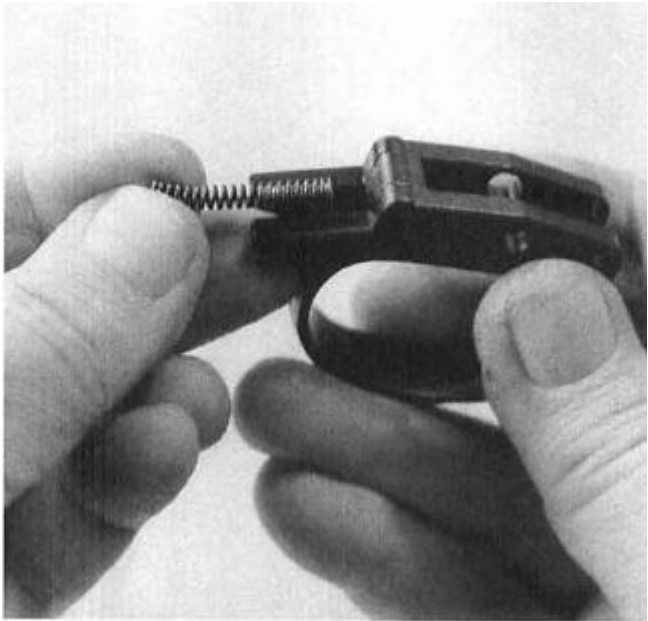
7. Remove the trigger guard unit downward and rearward.

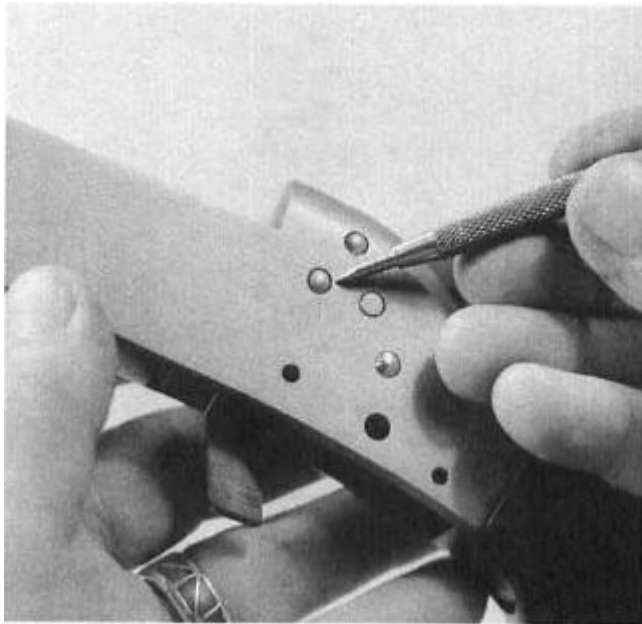
**8.** Remove the trigger from the guard unit.



**9.** Remove the combination trigger

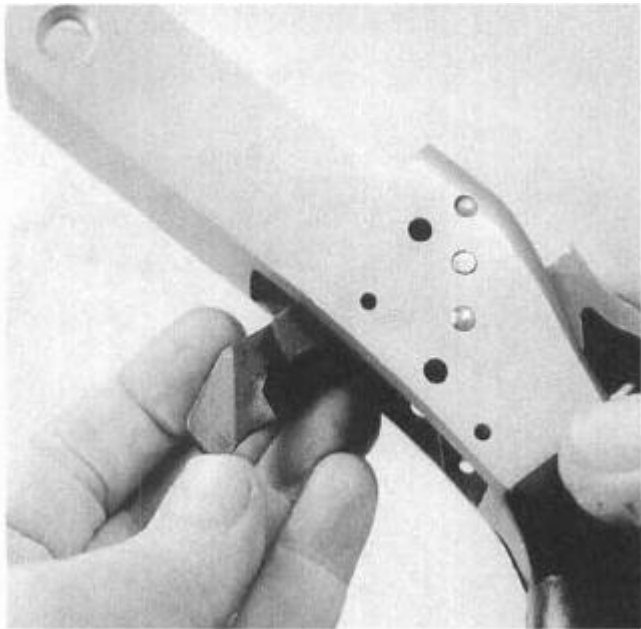
and barrel latch spring and its  
plunger from the guard unit.





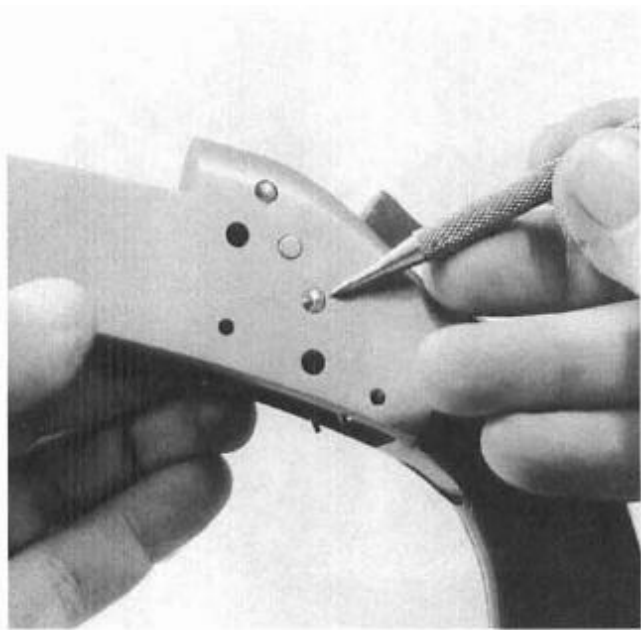
**10.** Drift out the barrel latch pivot toward the right.

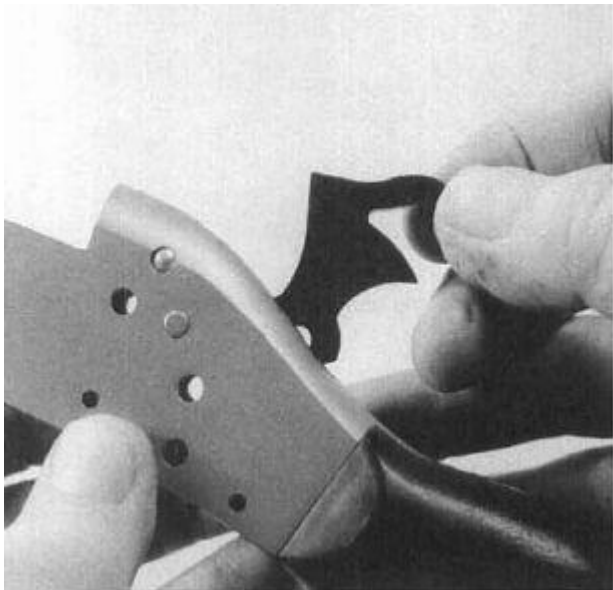
**11.** Remove the barrel latch downward.



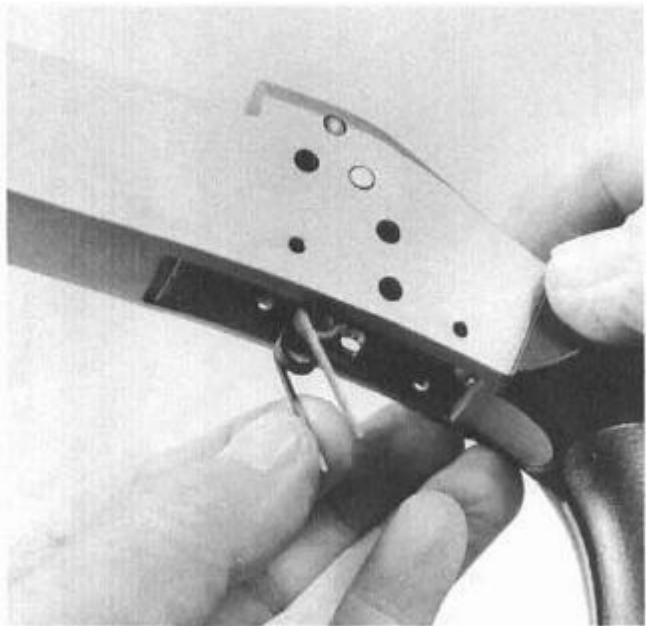


**12.** Drift out the hammer pivot toward the right.



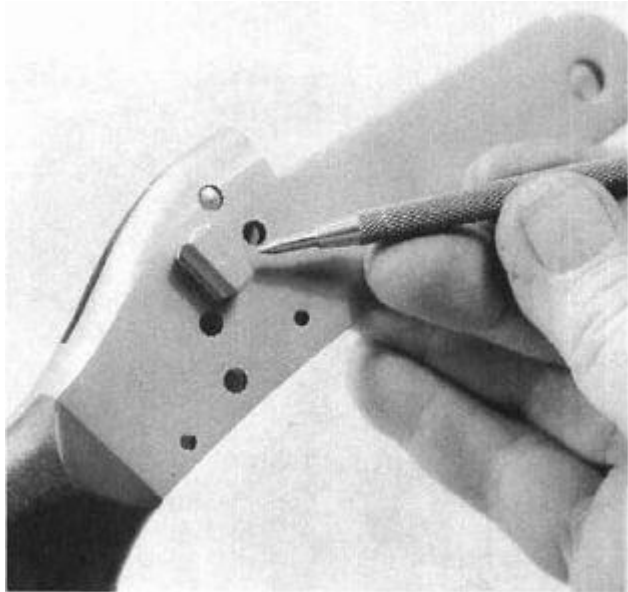


**13.** Remove the hammer upward.



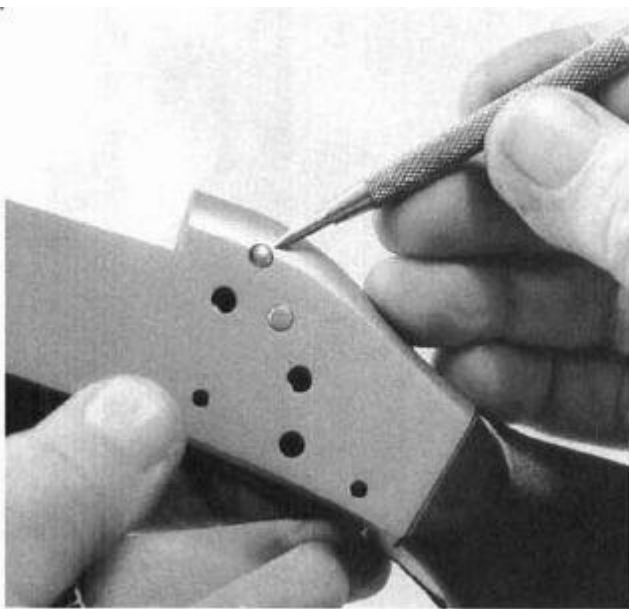
**14.** Remove the hammer spring downward.

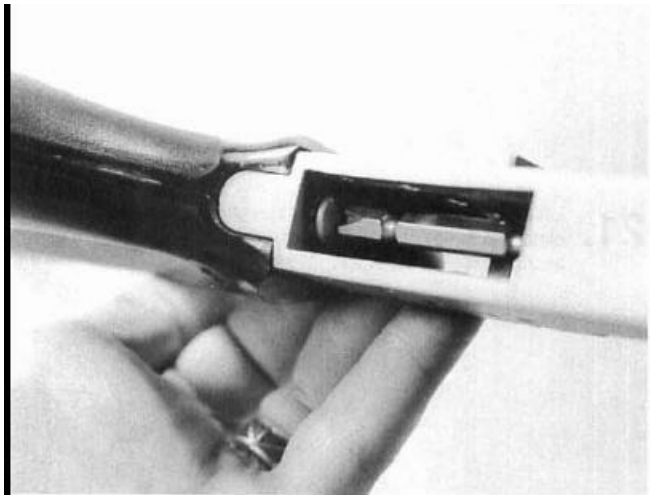
**15.** The manual safety is retained by a spring washer on the inside of the receiver. With a sharp tool, it is possible to work the washer off the shaft and remove the safety. However, damage to the spring washer is possible, and this could affect operation of the safety. In normal takedown, this system is best left in place. If repair is necessary, the receiver should be returned to the factory.



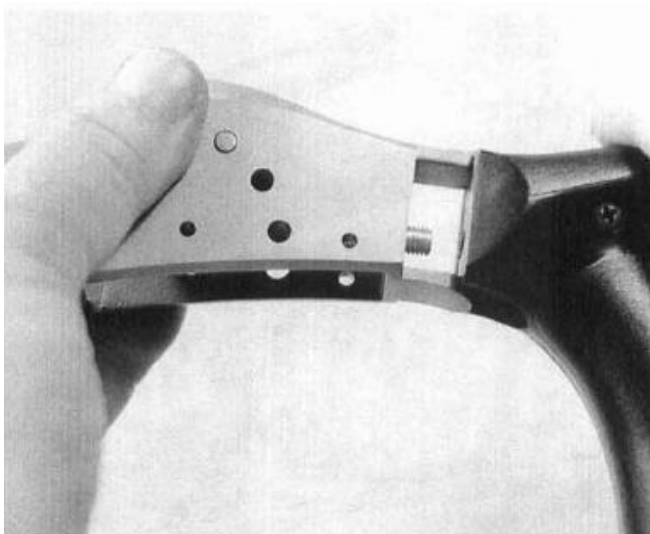
**16.** Drift the retaining pin at the top of the receiver out toward the right, and remove the firing pin and its return spring

toward the rear.





- 17** . Insert a Phillips screwdriver from the front, and remove the stock mounting screw, located inside the receiver at lower rear.



**18.** Remove the stock toward the rear.

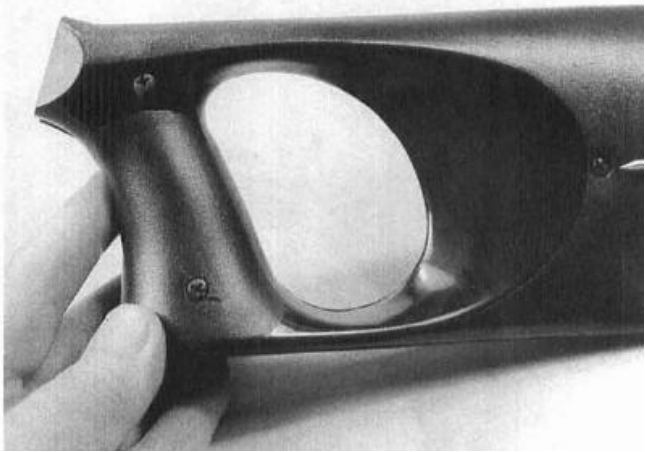
**19.** Remove the shell storage lid.





**20.** Remove the three Phillips screws in the left side of the stock, one at the rear and two in the pistol grip. Note, for

reassembly, that the upper screw in the grip is shorter.

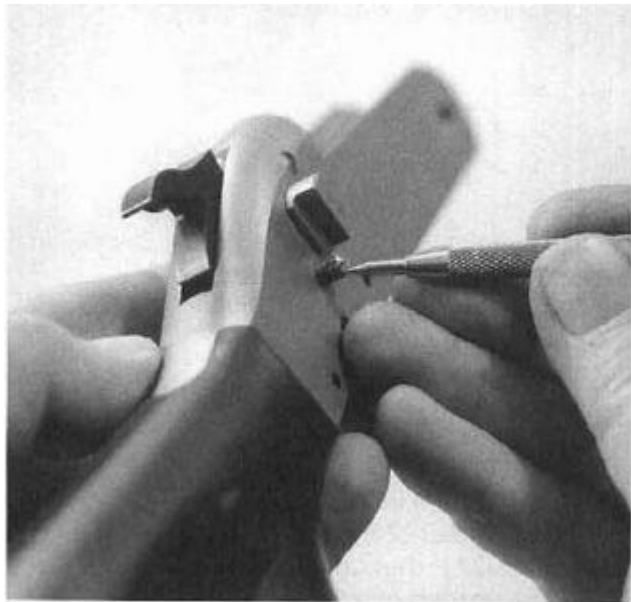




**21.** Lift off the left half of the stock. The shell storage plate and the stock screw nut can be lifted out of their recesses in the stock.

# Reassembly Tips:

1. When replacing the cross pins in the receiver, remember that the larger pins are splined at the right tips, and they must be drifted in toward the left.



**2.** Reinstalling the guard unit and trigger can be done without a slave pin, but it is much easier if one is used, as shown.





3. When replacing the guard unit in the receiver, be sure the front of the spring enters its recess in the back of the barrel latch.

Angle the guard as shown, and the spring should engage properly. As the guard is pushed into place, pull the trigger to clear the hammer steps. Replace the front cross pin, then the trigger pin. Use a drift to align the unit as the rear pin is replaced.





Three versions of the Snake Charmer are shown here. The gun at the top and the second gun are original H. Koon production. Note that the very early gun at the top has an internal trigger pin that

does not extend through the receiver. The lower gun is the currently made Snake Charmer II. It should be noted that on the two early guns, the splined cross pins are installed from left to right. So, check this carefully before drifting out the pins.

# **Stevens Hammer Double**



**Data:** Stevens Hammer  
Double

**Origin:** United States

**Manufacturer:** J. Stevens Arms &  
Tool Co.,  
Chicopee Falls,  
Massachusetts

**Gauges:** 12, 16

**Overall  
length:** 38-1/4 inches  
(with 22-inch  
barrel)

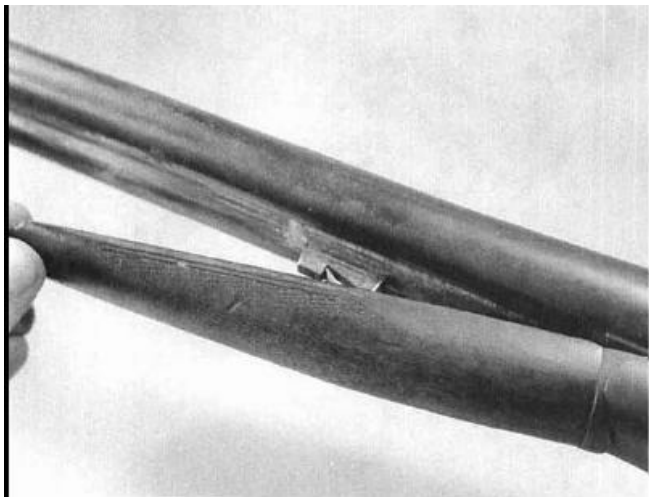
**Barrel length:** 22 inches on gun  
shown, others  
offered

**Weight:** 7-1/2 pounds

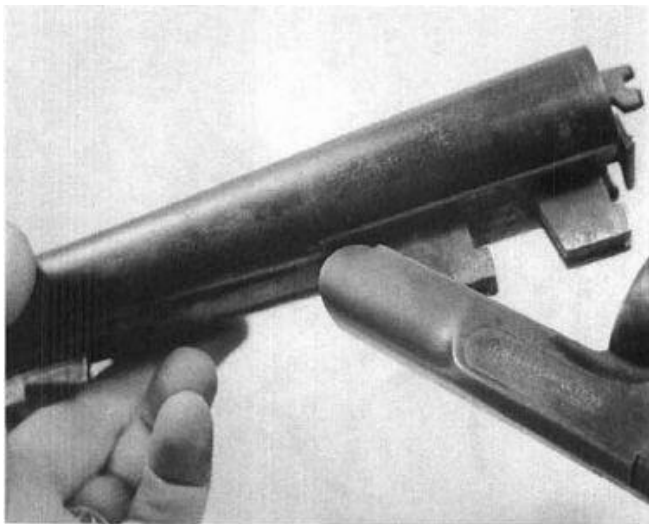
Joshua Stevens began making guns in Massachusetts in 1864, and the firm became J. Stevens Arms & Tool Co. in 1886. The firm was bought by Savage in 1926. The old external-hammer double shown here was typical of the Stevens shotguns made from 1886 to around 1910. No model designation is known-it was referred to simply as "The Double Gun" in early catalogs.

# Disassembly:

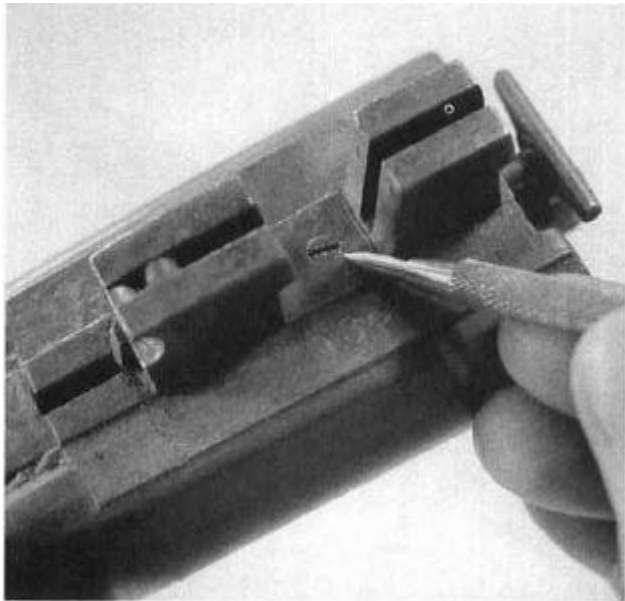
1. Pull the front of the forend away from the barrels, and remove it downward.



2. Operate the barrel latch, open the action, and remove the barrel unit upward.

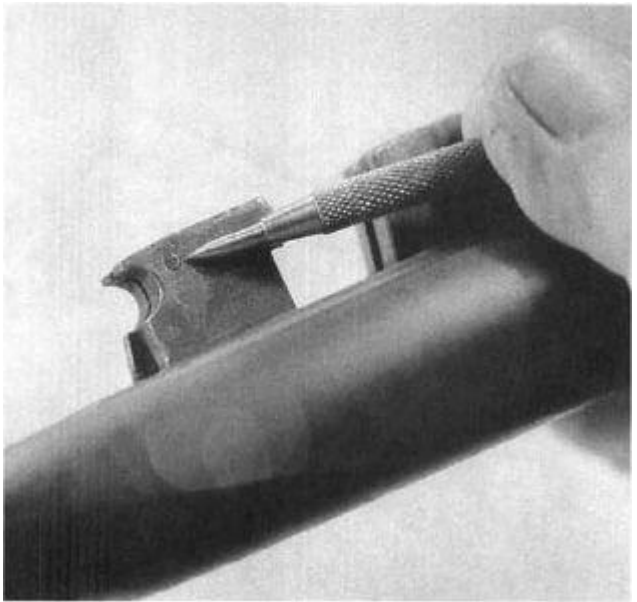






3. The ejector is retained by a screw on the underside of the barrel unit, between the locking lugs. The ejector is

removed toward the rear.



4. The ejector lever is pivoted and retained by a cross pin in the

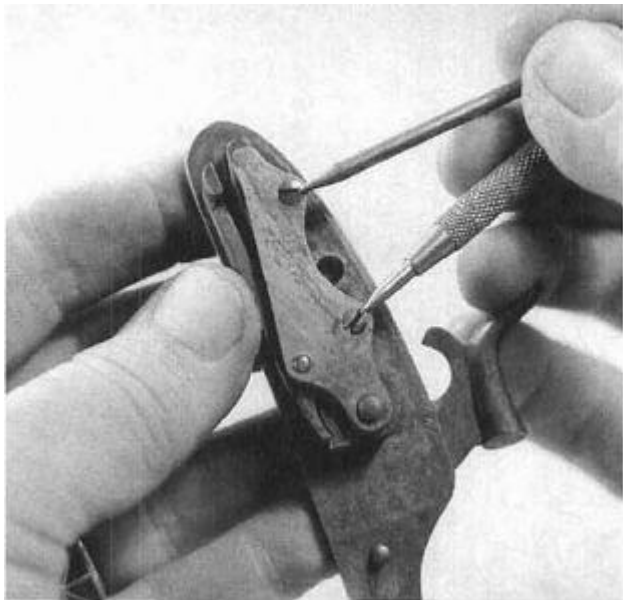
forward lug. The lever is taken out downward.

- 5.** With the hammers at rest, remove the cross screw that retains the locks.



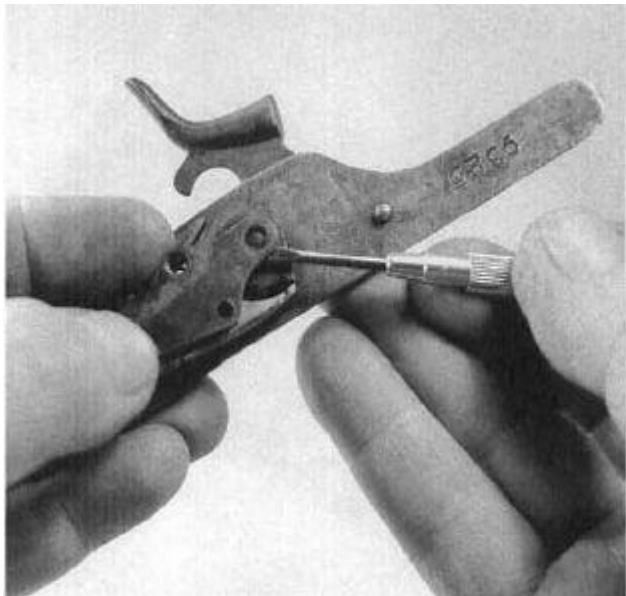
6. Insert a slim drift from the opposite side, and gently push the rear of the lock outward for removal, repeat this operation for the other lock.





7. Remove the two screws in the plate on the inside of the lock. The two screw posts will be released, so take care that they

are not lost. When removing the front screw, put slight rearward pressure on the hammer, and release the tension slowly after the screw is out.

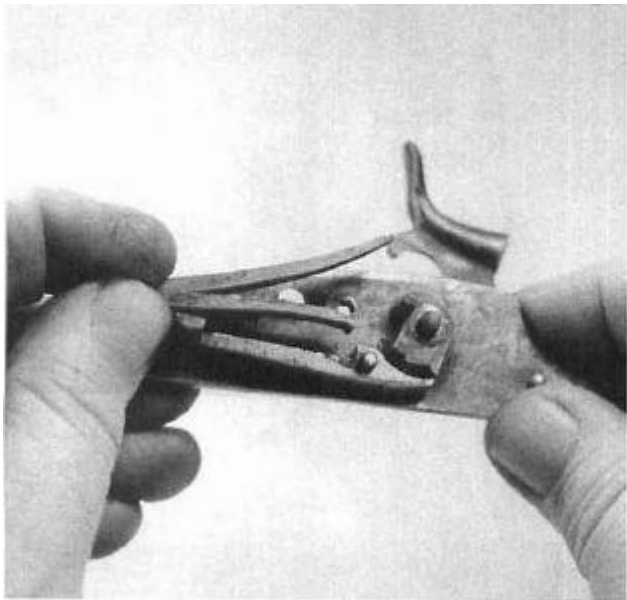


8. Insert a tool to gently pry the plate off the sear and tumbler pivots. The hammer spring will jump up at the front, but it

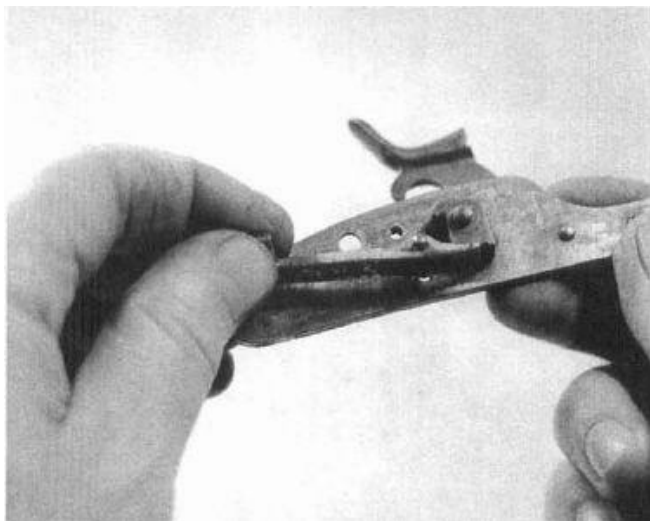


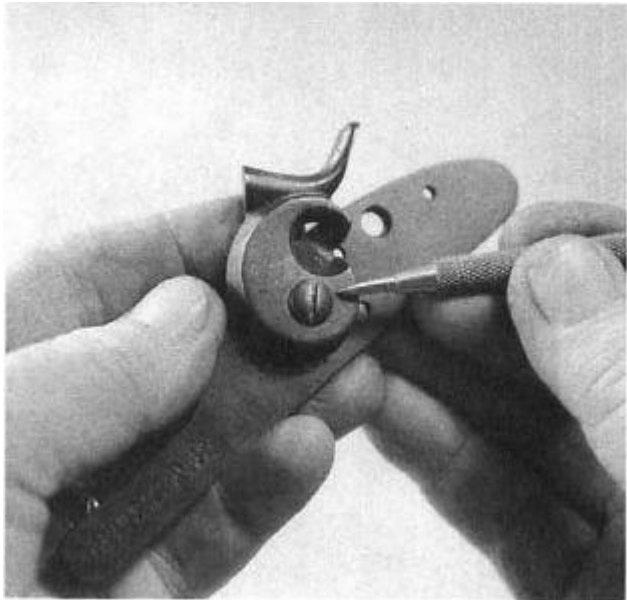
will not fly out. Remove the plate.

**9.** Remove the hammer spring.

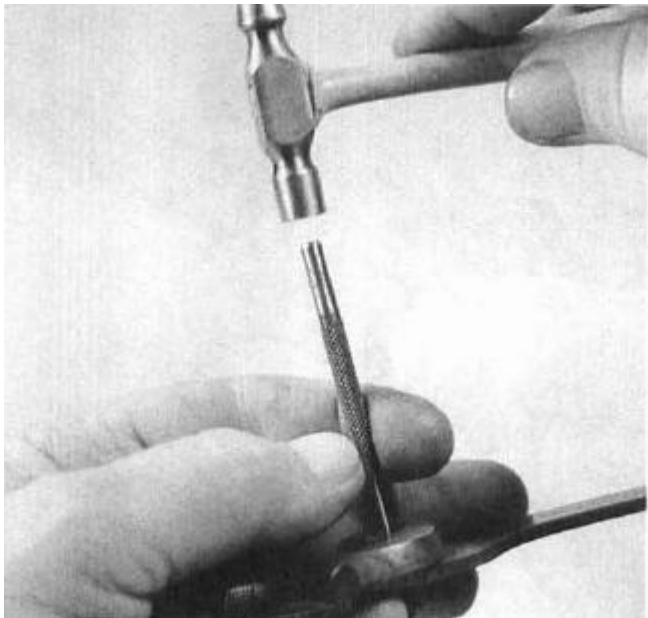


**10.** Remove the sear. The sear pivot pin is tightly fitted, and it is not removed in normal takedown.





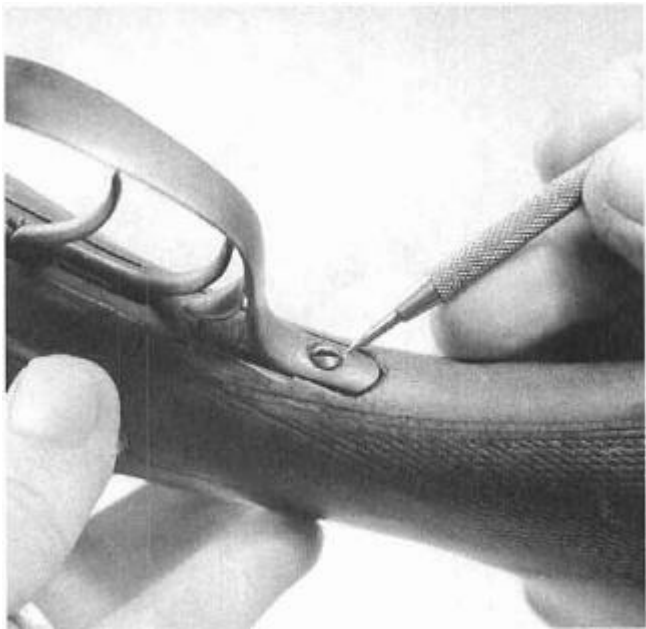
**11.** Remove the hammer retaining screw.



**12.** Use a slim drift in the screw hole to nudge the tumbler shaft out of the hammer. This will free the hammer and the

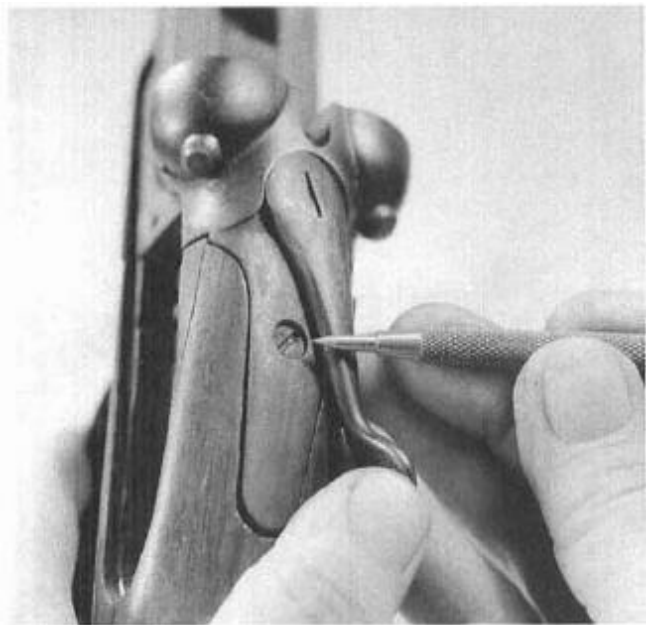
tumbler for removal from the lock-plate.

- 13.** Remove the screw at the rear of the trigger guard.

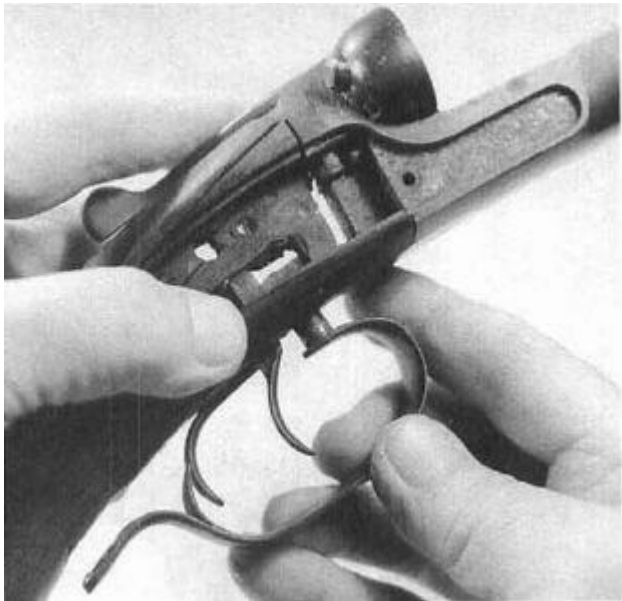


**14.** Push the barrel latch lever aside for clearance, and remove the screw at the center

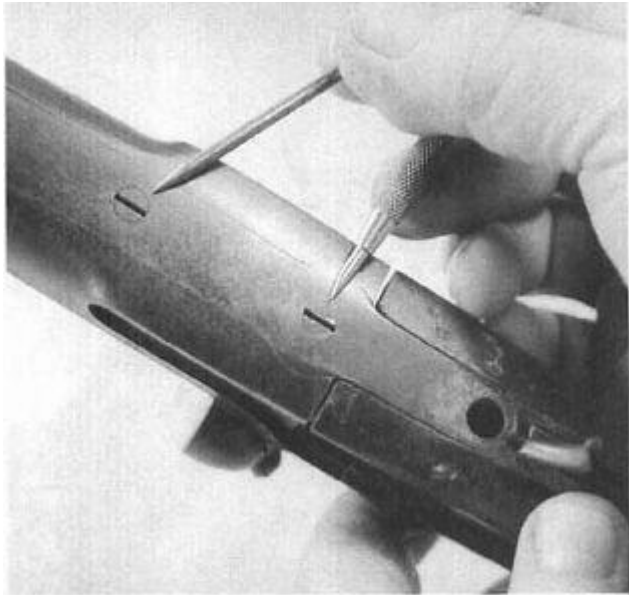
of the upper tang.







**15.** Turn the trigger guard slightly to clear the rear trigger, and remove the guard downward.



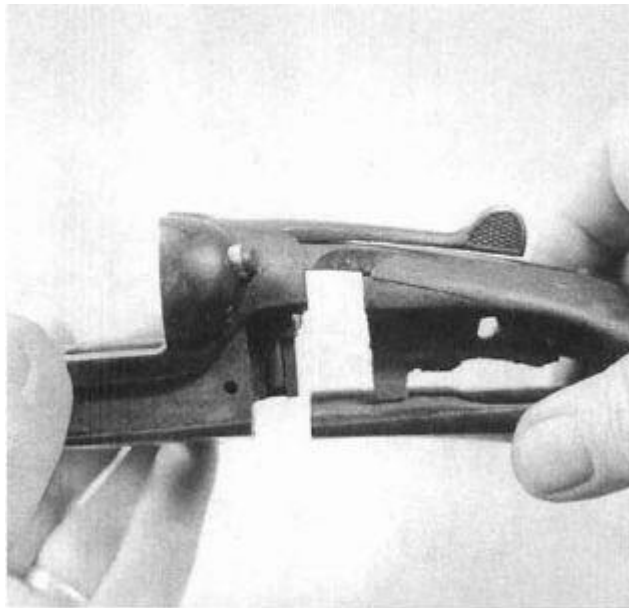
**16.** Remove the two screws on the underside of the receiver. Keep them in order, as they were finished in place, and

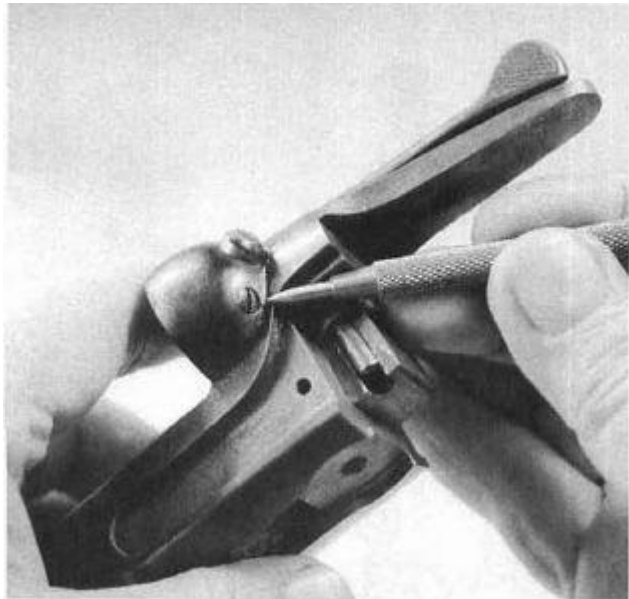
will fit well only in their original locations.

- 17.** Remove the trigger plate from the bottom of the receiver. It may be tight, and may require nudging with a drift from inside the receiver.

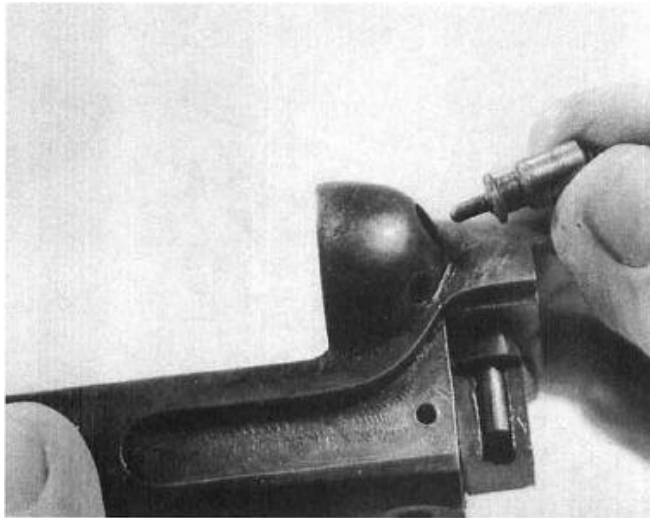


**18.** Removal of the lower plate will free the buttstock to be taken off.





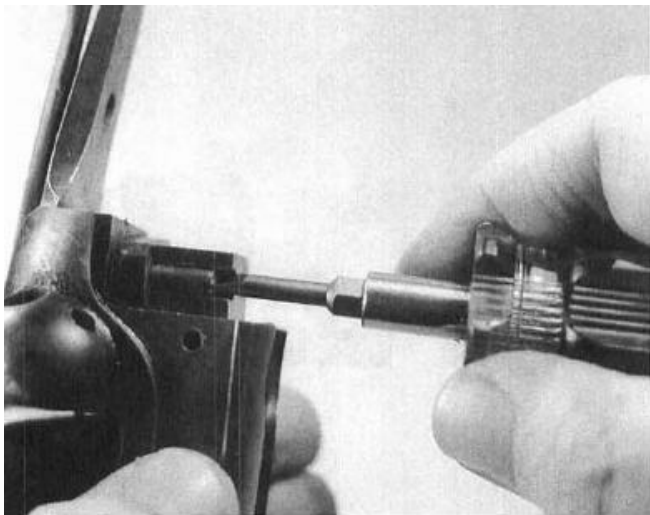
**19.** Remove the small screw below the firing pin.



**20.** Remove the firing pin toward the rear. Repeat the operation on the opposite side.

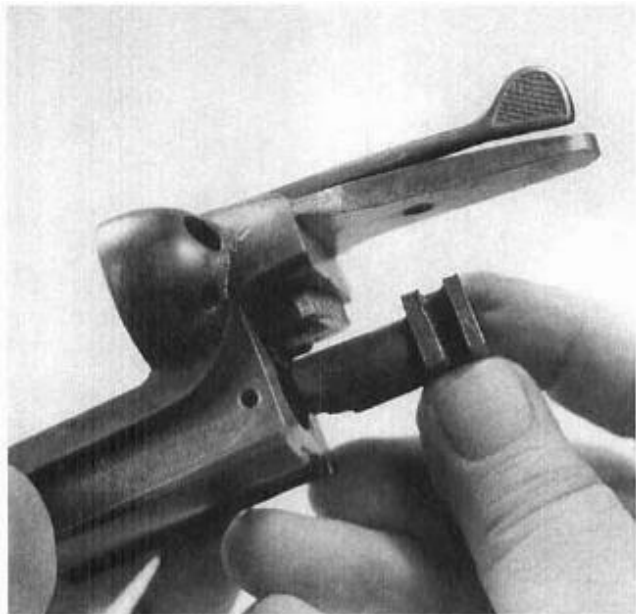
**21.** Remove the locking block post

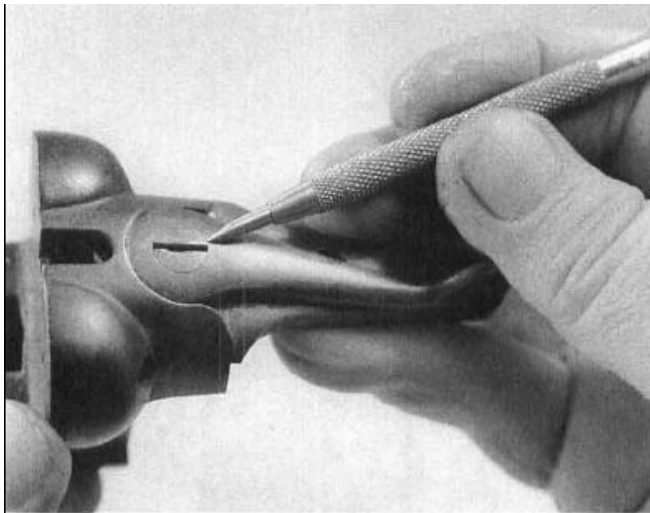
screw.



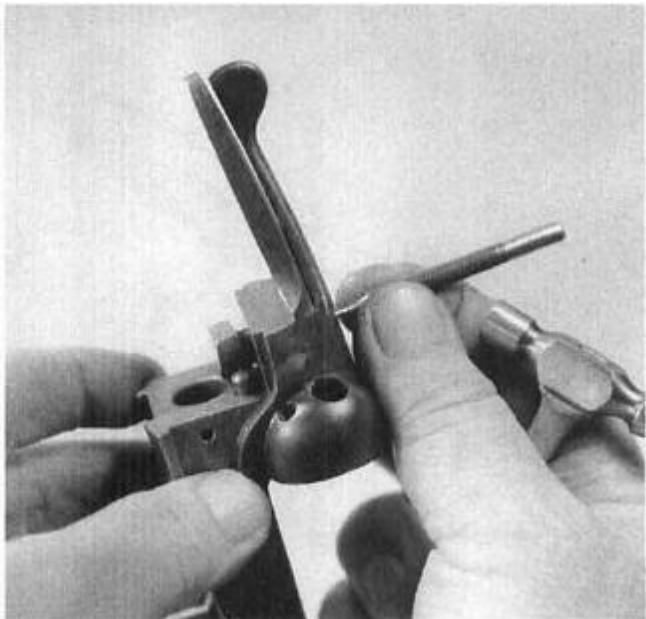
**22.** Remove the locking block toward the rear.







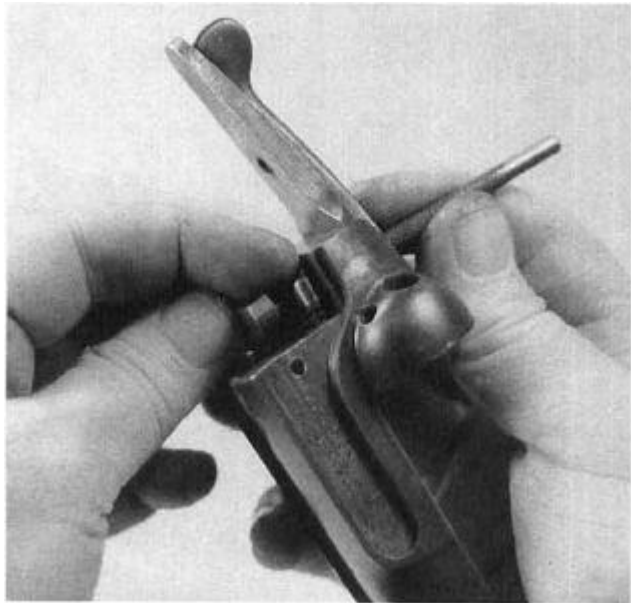
**23.** Remove the barrel latch lever screw.



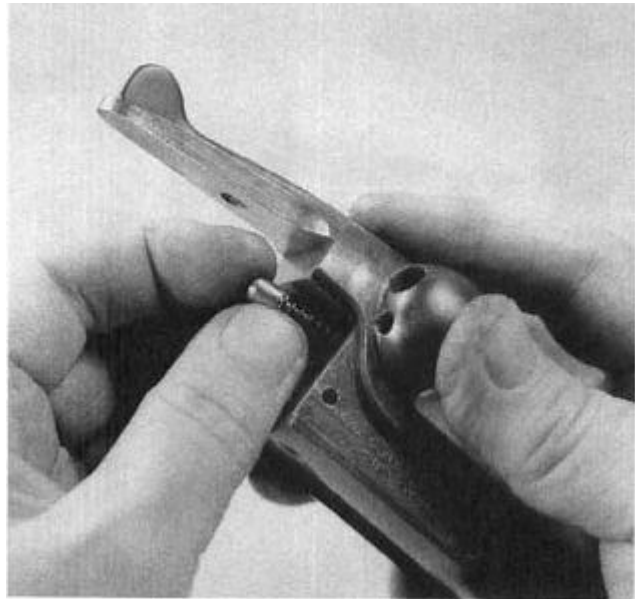
**24.** Use a small drift in the screw hole to nudge the lever base downward. As the base clears

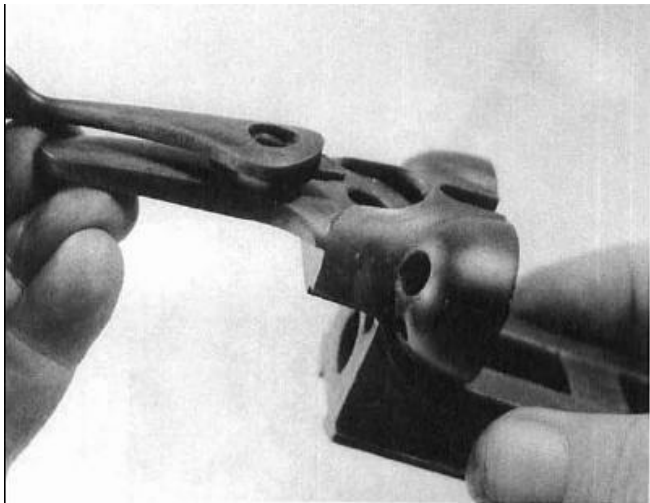
the spring plunger, the plunger will be released, so restrain it.

- 25.** Remove the latch lever base downward.

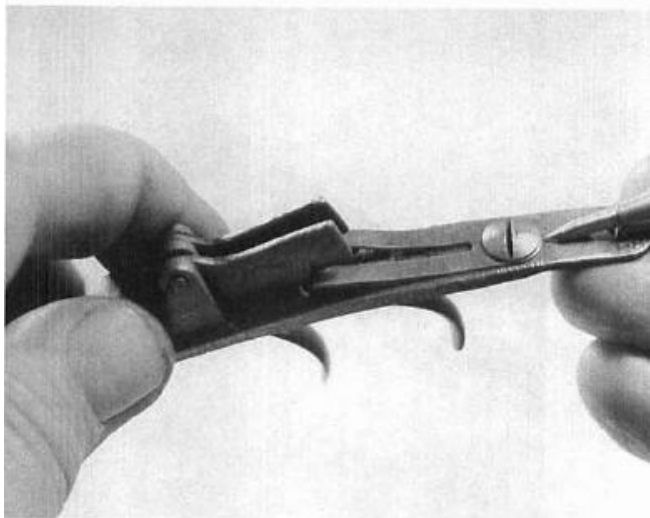


**26.** Remove the latch lever plunger and spring.





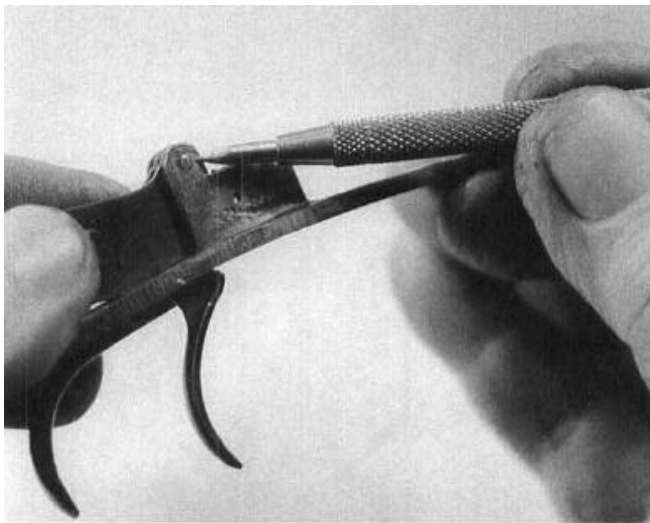
**27.** Remove the latch lever toward the rear.



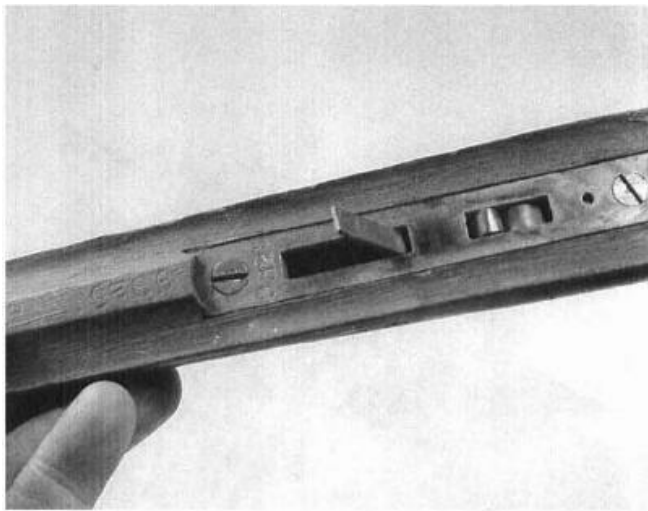
**28.** The twin-bladed trigger tension spring is retained by a vertical screw at the rear.

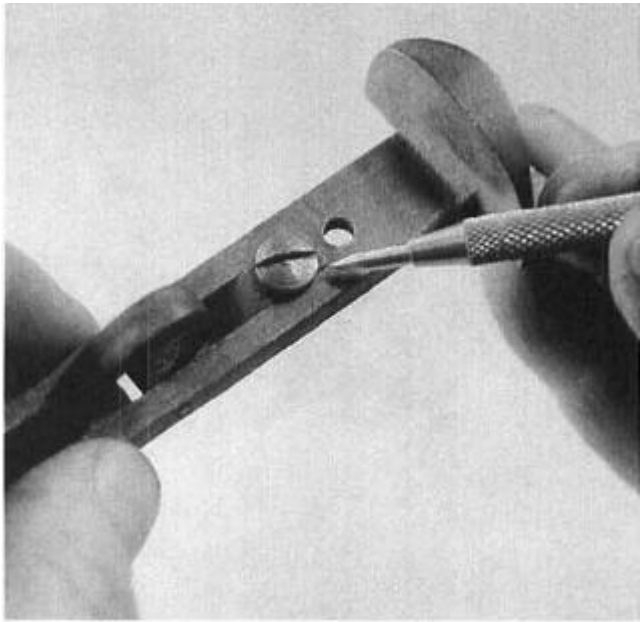


**29.** The triggers are pivoted and retained by a cross pin. The pin will usually have an enlarged head on one side, so drift it out in that direction.



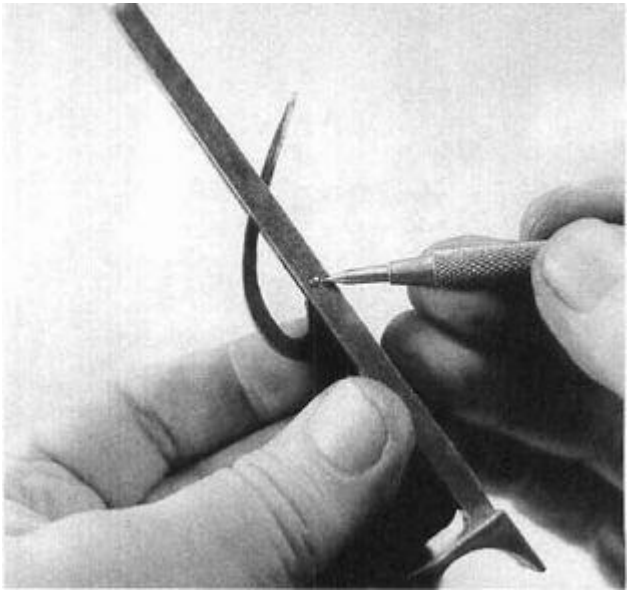
**30.** The forend iron is retained by two vertical screws.





**31.** The positioning spring for the forend latch spring is retained by a vertical screw on the

underside of the forend iron.

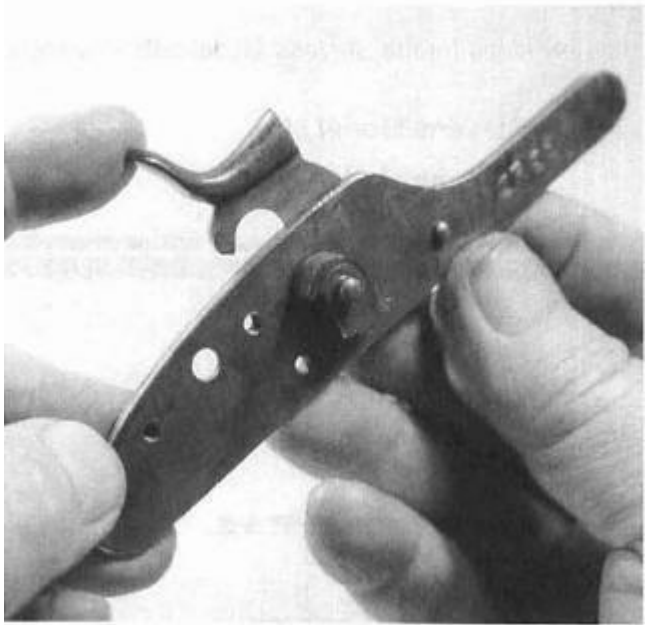


**32.** The forend latch spring is retained and pivoted by a

cross pin.

# Reassembly Tips:

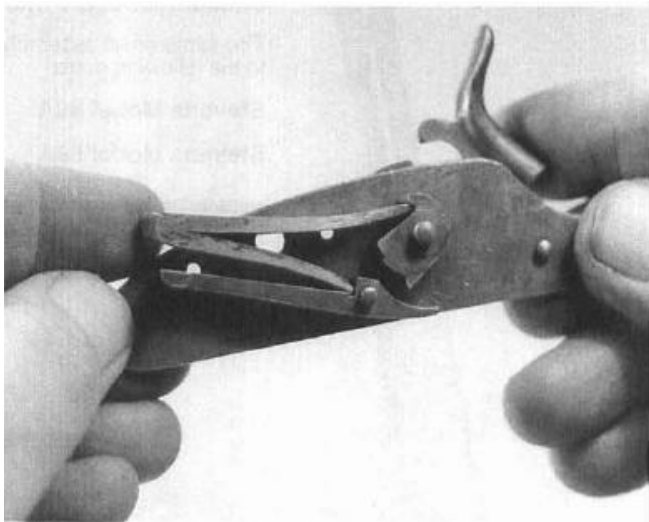
1. When replacing the hammer and tumbler on the lock-plate, be sure the tumbler is oriented as shown in relation to the hammer.

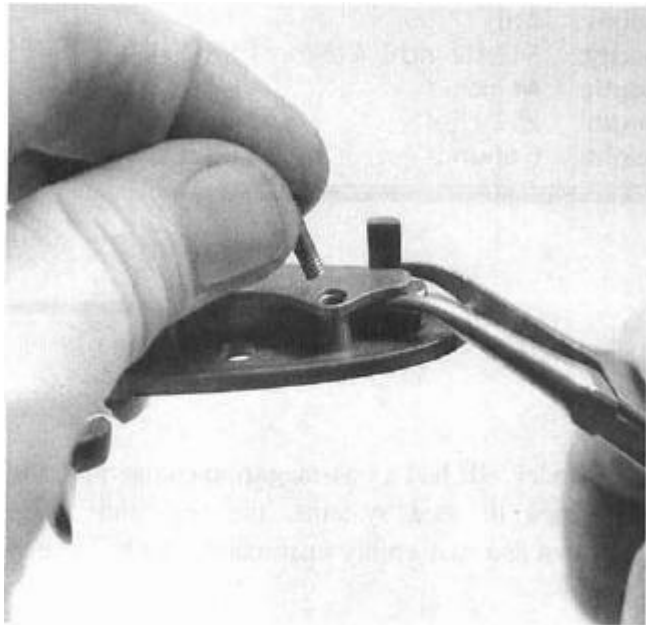


2. Insert the ends of the spring in their seats in the sear and tumbler, then use the hammer

to compress the spring for installation of the inner plate screws and posts. Before this is done, put the plate in place on the pivots. It is left off in this view to show the spring engagement.







3. When installing the rear post and screw, it will be necessary to grip the sear and

the spring, as shown, for clearance of the screw post.

When replacing the firing pin retaining screws, keep the screw heads even with the surface of the receiver. Avoid over-tightening, as this will bind the firing pins.

# **Stevens Model 59B**



## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Stevens Model 59B also apply to the following guns:

**Stevens Model 39A**

**Stevens Model 59A**

**Stevens Model 58**

**Stevens Model 59C**

**Data:** Stevens Model  
59B

**Origin:** United States

**Manufacturer:** Savage Arms  
Company,  
Westfield,  
Massachusetts

**Gauges:** 410

**Magazine** 5 (2-1/2 inch), 4

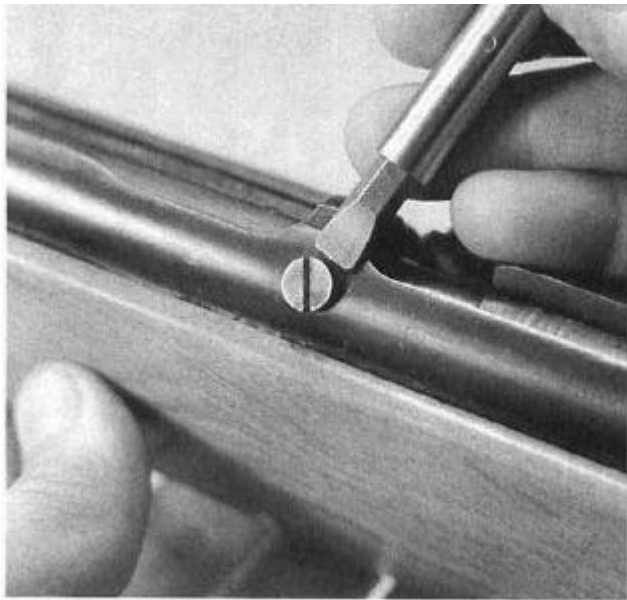
<b>capacity:</b>	(3-inch)
<b>Overall length:</b>	44 inches
<b>Barrel length:</b>	25 inches
<b>Weight:</b>	6 pounds

Made between 1937 and 1967, the Model 59B had a box-magazine counterpart, the Model 58. Except for the difference in feed systems, the two guns were mechanically identical. These takedown and reassembly instructions can be applied to all variations.

# Disassembly:

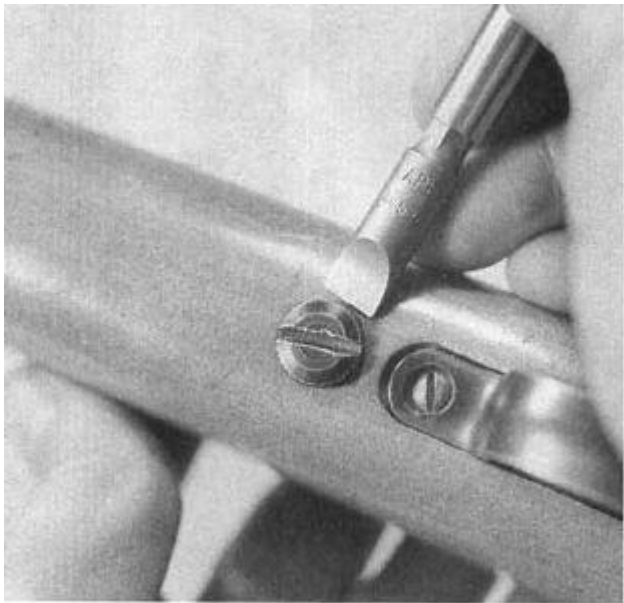
1. Remove the bolt stop screw, located on the left side of the receiver. Open the bolt, hold the trigger back, and remove the bolt toward the rear.

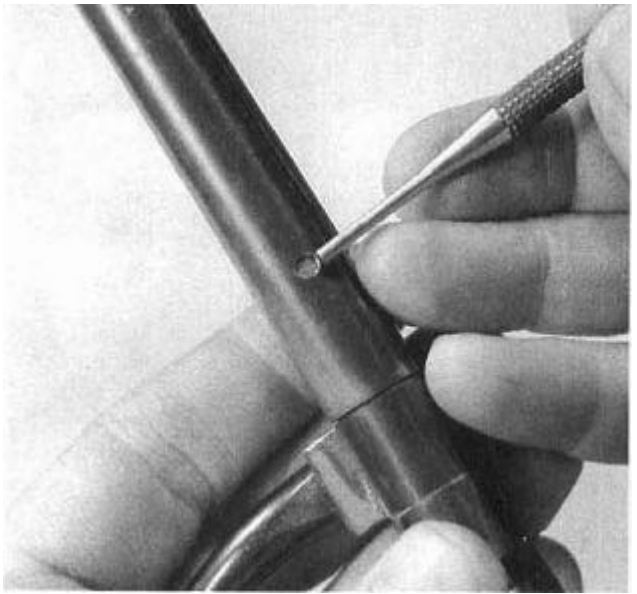




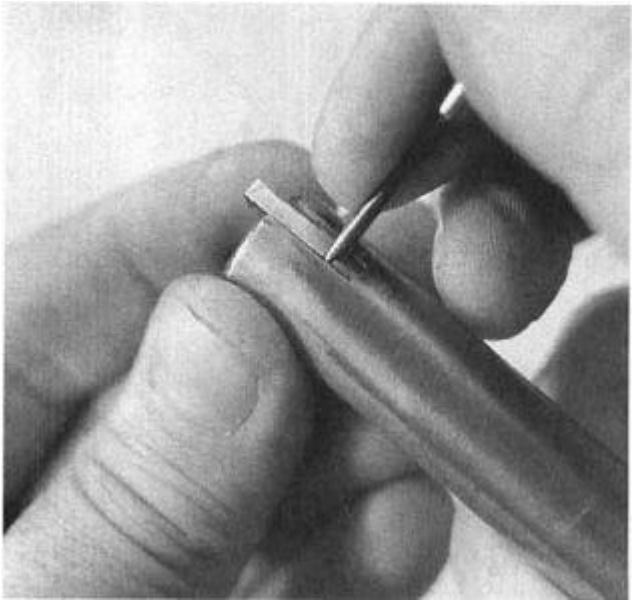
2. Remove the inner magazine tube, and back out the stock mounting screw, located on the underside. just forward of

the trigger guard. Remove the action from the stock.



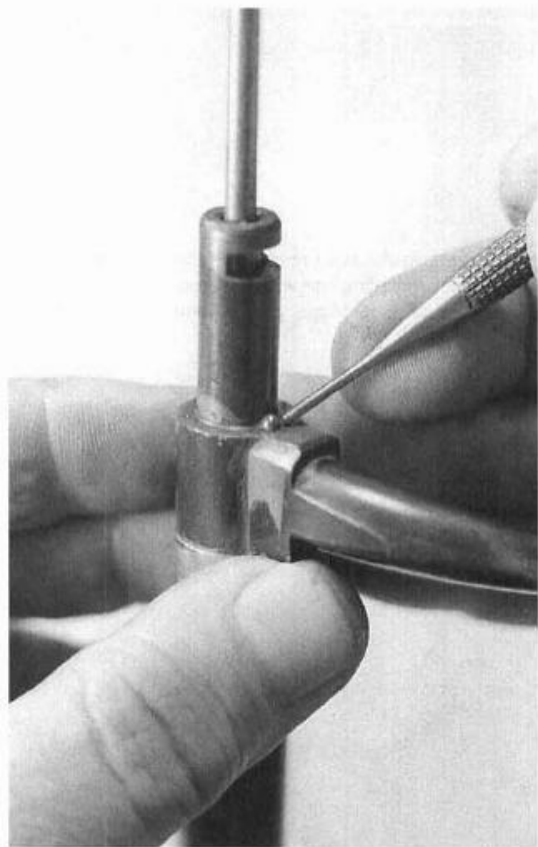


- 3.** Drill out the cross pin in the forward section of the bolt, and take off the forward section toward the front.



4. Insert a small screwdriver between the rear edge of the extractor and the extractor

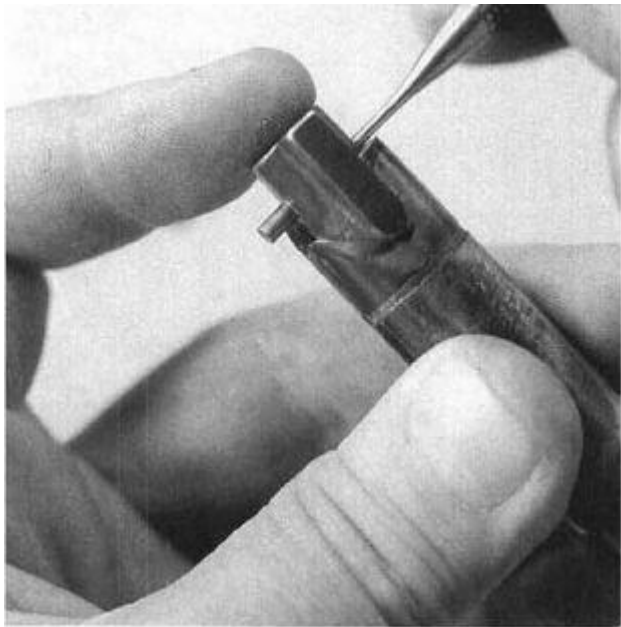
plunger, and depress the plunger, holding it back while lifting the extractor out of its recess. Repeaty the operation with the other extractor. Caution: Take care that the screwdriver doesn't slip, and ease out the plungers and springs.



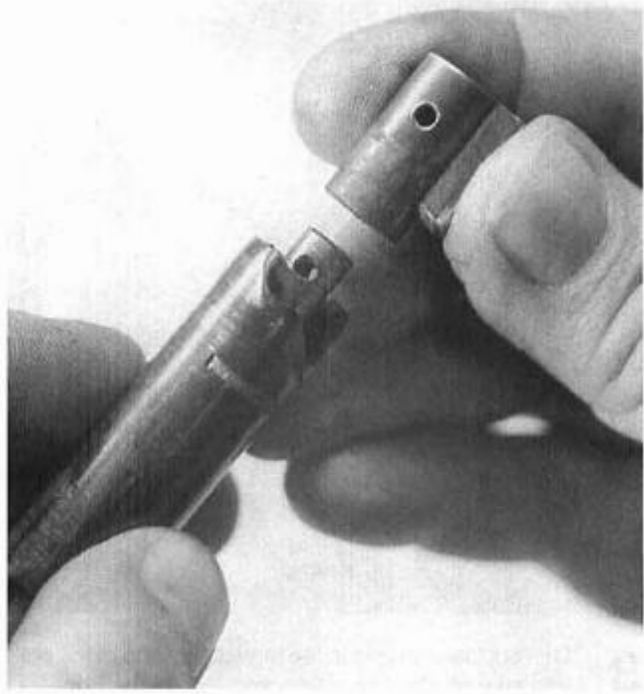
5. Remove the bolt head stop plunger and its spring from the front of the bolt handle base.
6. Depress the striker safety lever, located just to the rear of the bolt handle, to allow the striker to go all the way forward. Turn the cocking piece counter-clockwise (rear view), and let the striker go forward to the fired position, as shown.





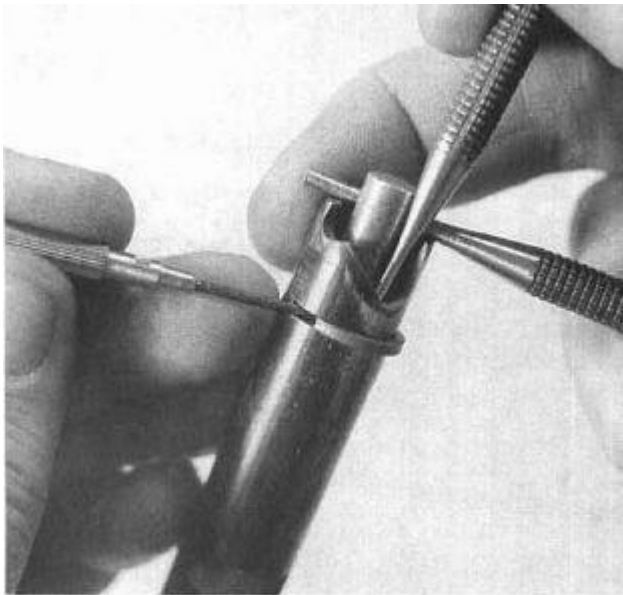


7. Drift out the cocking piece cross pin toward the left.



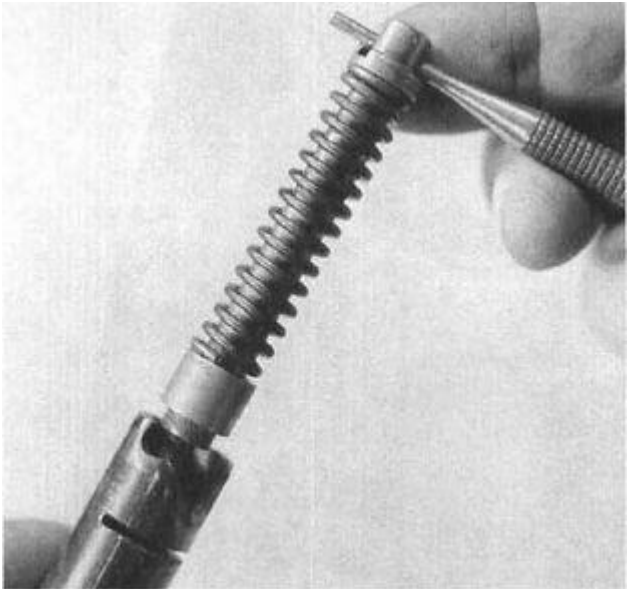
**8.** Remove the cocking piece toward the rear.

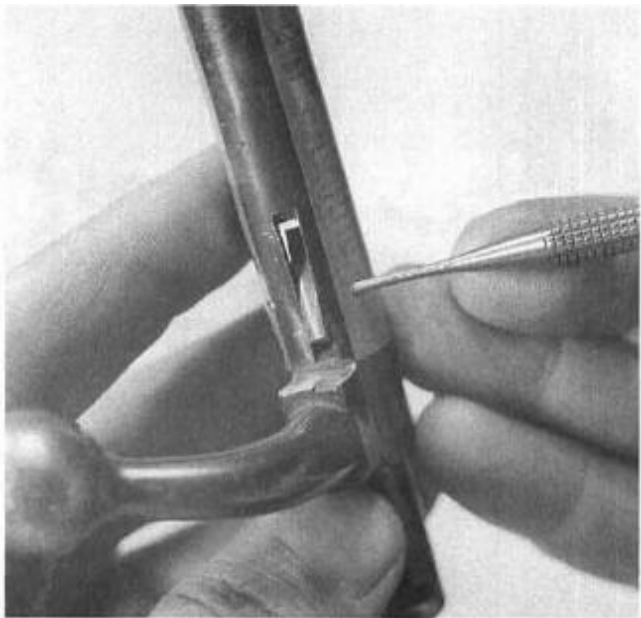
9. Insert a drift through the transverse hole in the striker rod, and use a smaller drift punch to push forward on the striker spring washer. Keeping the washer depressed, use a small screwdriver to move the striker spring retainer out of its slot in the bolt. When the retainer is out, the spring will push the washer back against the drift in the cross hole.



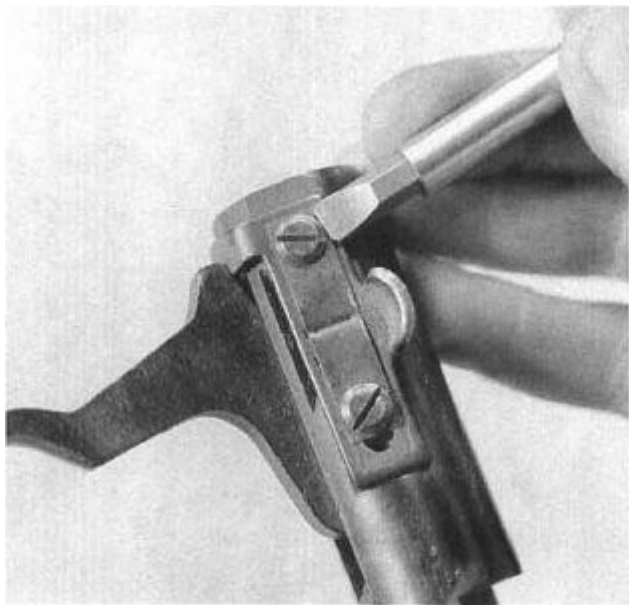
- 10.** Remove the striker assembly toward the rear. To remove the spring and washer from the striker shaft, press the washer

against the edge of a partially-opened vise, and take out the drift punch. Release the spring tension slowly.





**11.** A cross pin in the bolt retains the striker safety block and its spring.

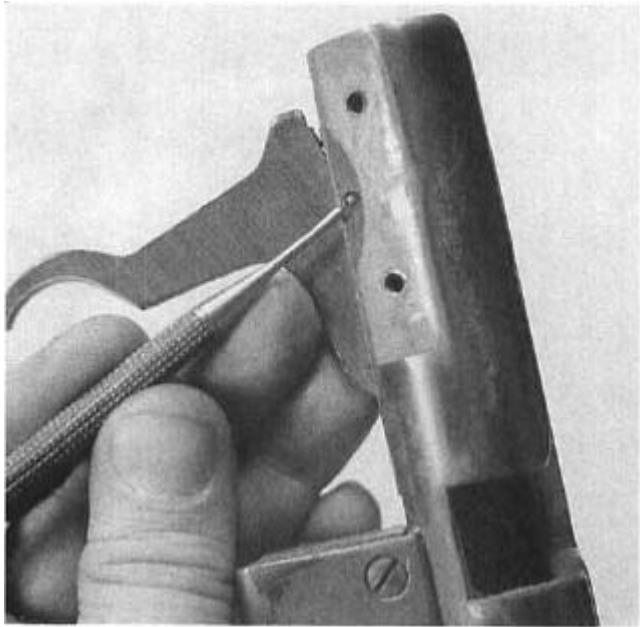


**12.** The safety and its positioning spring are retained i on the right side of the receiver by

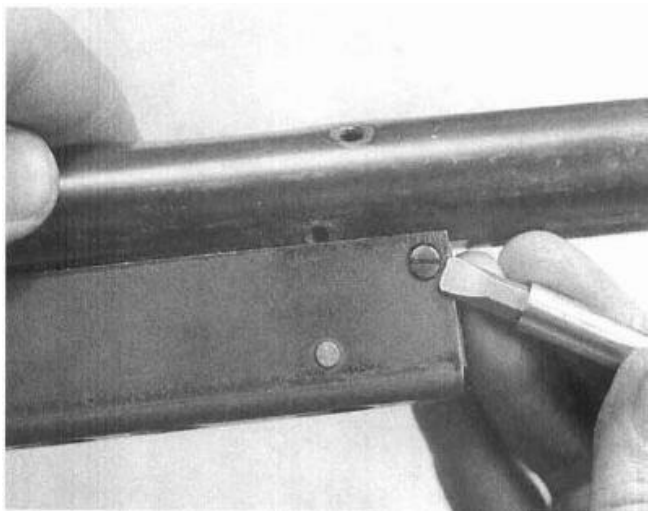
two post screws, and removal is toward the right.

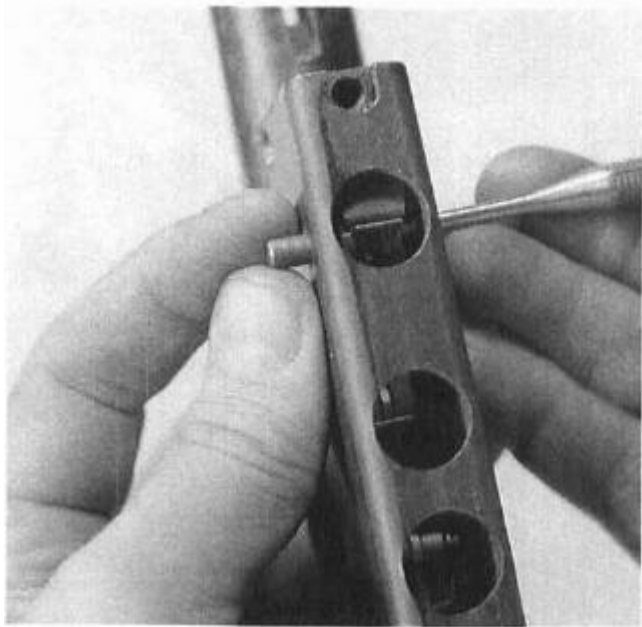
- 13.** Drifting out the cross pin on the underside of the receiver at the rear will allow removal of the trigger and its spring downward.



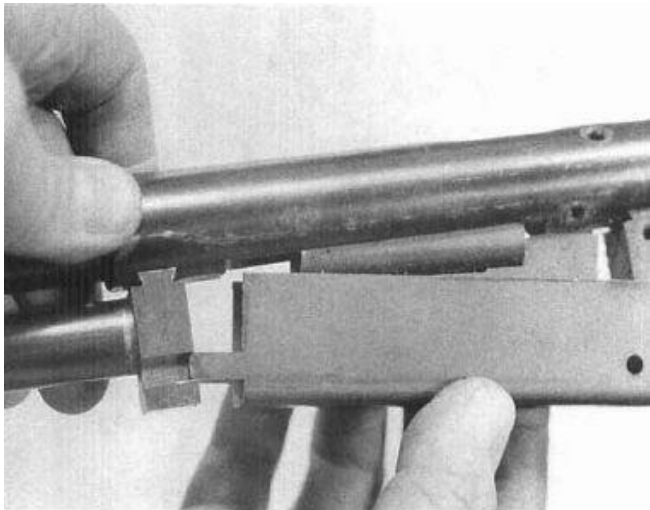


- 14.** Remove the screws on each side at the upper rear of the lifter housing.





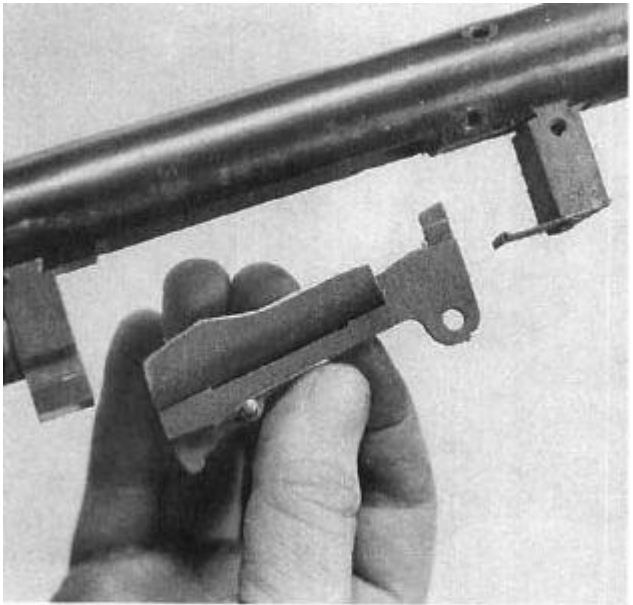
**15.** Drift out the lifter pivot pin toward the left.



**16.** Slide the lifter housing toward the rear, tip its rear end downward, and remove it.

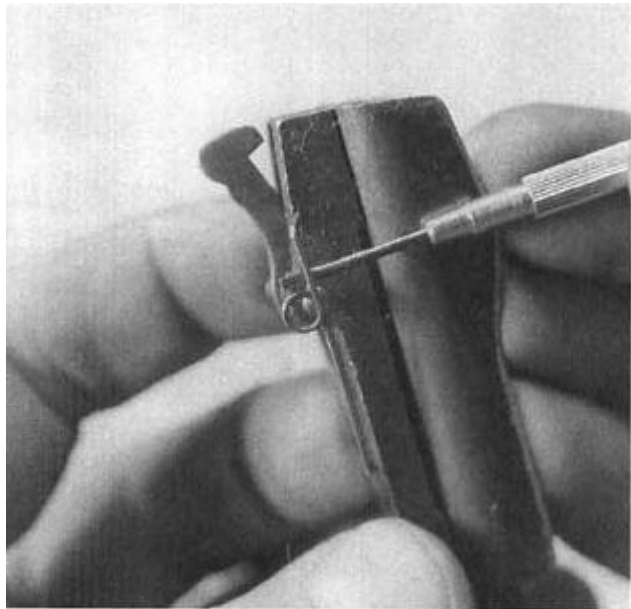
**17.** Move the lifter forward, then

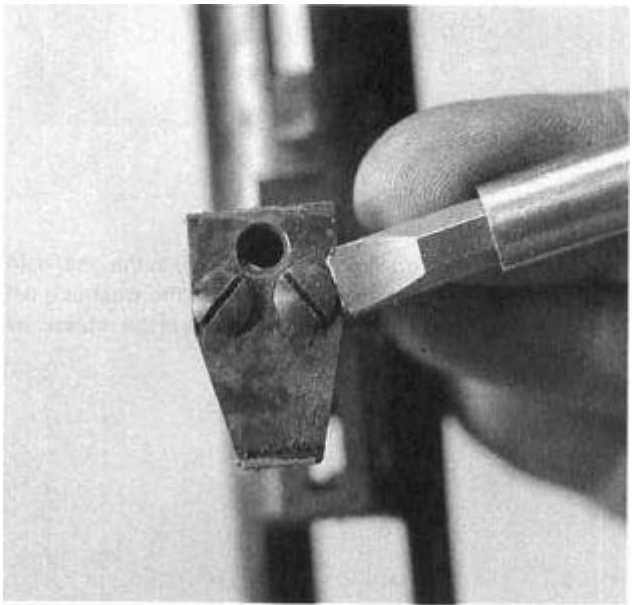
remove it downward.



**18.** Removal of the lifter lever spring loops from the grooved

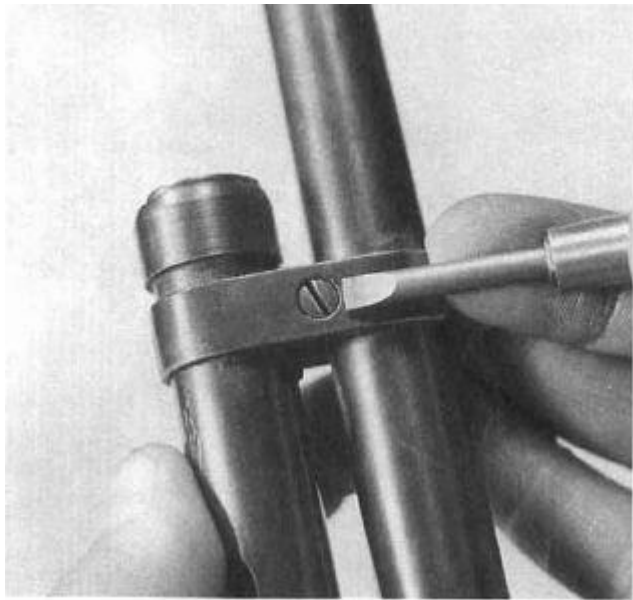
ends of the cross pin will allow the spring to be taken off, and the pin pushed out. The lever is then free for removal.





**19.** The lifter positioning spring is retained on the bottom of the carrier post by two screws.



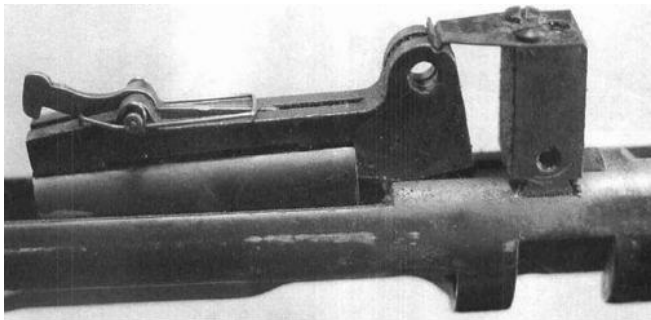


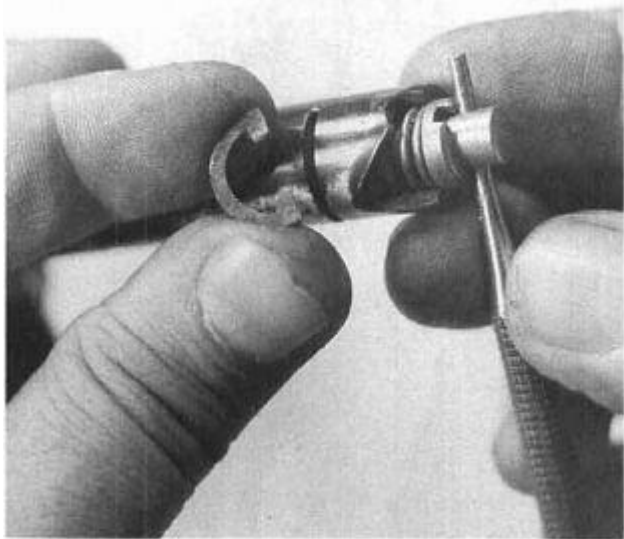
**20.** Removal of the cross screw in the magazine tube hanger will allow the hanger and tube to be taken off toward the front.



# Reassembly Tips:

1. When replacing the carrier assembly, push it back to engage its positioning spring, and the spring will hold it in place, as shown, during replacement of the carrier (lifter) housing. When inserting the pivot pin, be sure the holes are all in alignment.





2. When replacing the striker assembly in the bolt, note that the notches in the rear face of the washer must be aligned

with the inner projections of the retainer as it is inserted into its slot.

# **Stevens Model 124C**





**Data:** Stevens Model  
124C

**Origin:** United States  
Savage Arms

**Manufacturer:** Corporation,  
Chicopee Falls,  
Massachusetts

**Gauges:** 12 only

**Magazine  
capacity:** 2 rounds

**Overall  
length:** 47 inches

**Barrel length:** 28 inches

**Weight:** 7 pounds

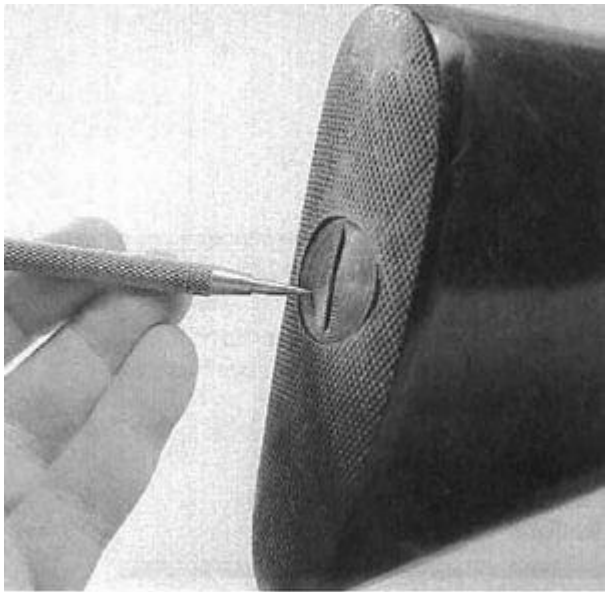
Often mistaken for a semi-auto because of its appearance, the Stevens/Savage Model 124 is a straight-pull bolt action, the knob being pushed in to lock and ready for firing. Made from 1947 to 1952, the Model 124 was also notable for having a stock and forend made of "Tenite," a plastic material. During its brief production time, the gun was made as the Model 124, 124B, and 124C. I have also seen one marked "Model 1244." There will be slight parts variations among these sub-models, but

nothing that would affect the takedown.

# Disassembly:

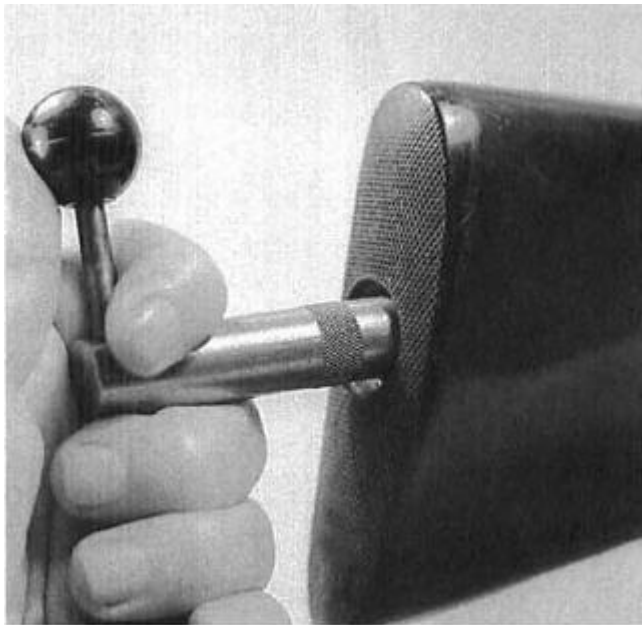
1. Often mistaken for a semi-auto because of its appearance, the Stevens/ Savage Model 124 is a straight-pull bolt action, the knob being pushed in to lock and ready for firing. Made from 1947 to 1952, the Model 124 was also notable for having a stock and forend made of Tenite," a plastic material. During its brief production time, the gun was made as the Model 124, 124B, and 124C. I have also seen

one marked "Model 1244."  
There will be slight parts  
variations among these sub-  
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affect the takedown.

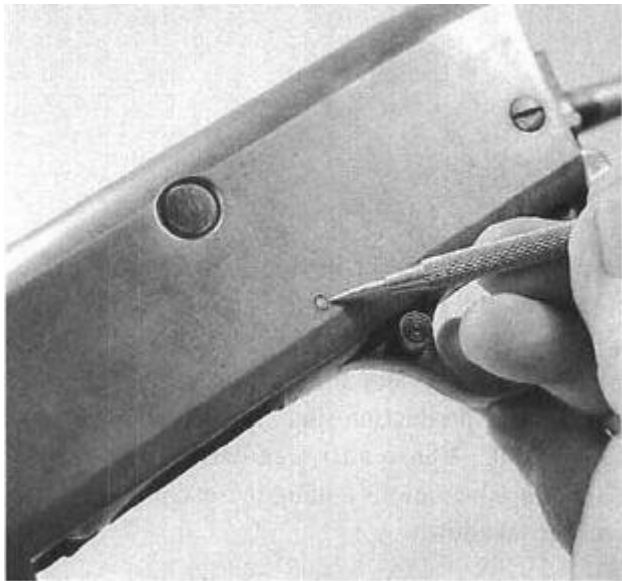


- 2.** Insert a long screwdriver, or, as shown, a B-Square stock tool to unscrew the stock bolt and take off the stock toward the

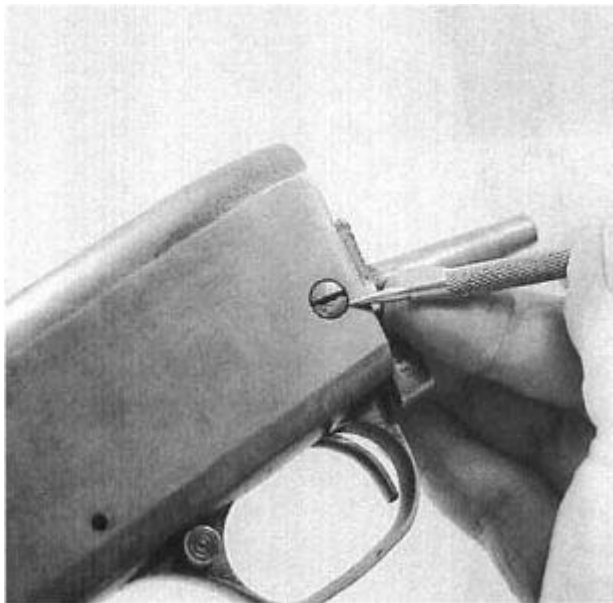
rear. If a screwdriver is used, take care that its tip properly engages the slot in the stock bolt, to avoid cracking the stock.







3. Cycle the bolt to cock the Internal hammer. Drift out the trigger group cross pin.

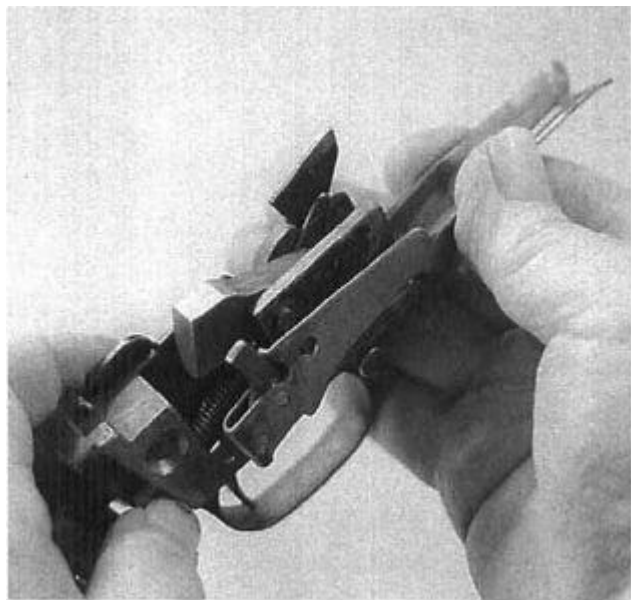


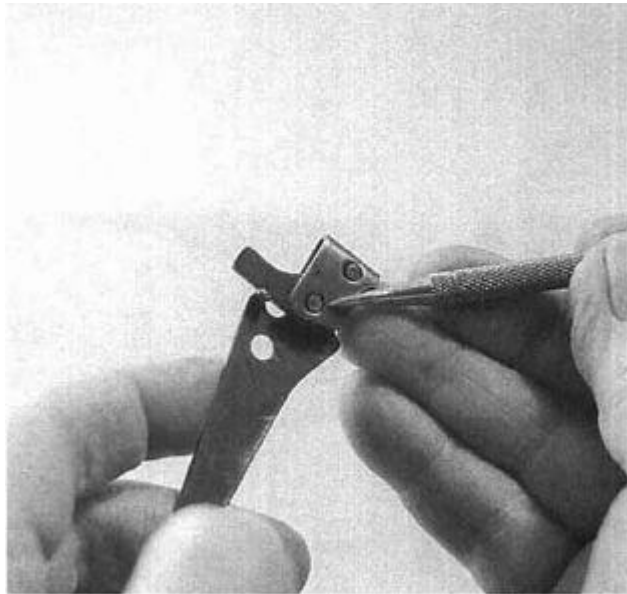
- 4.** Remove the large cross-screw at the rear of the receiver.

5. Tip the trigger group down at the front, and then take it out downward.



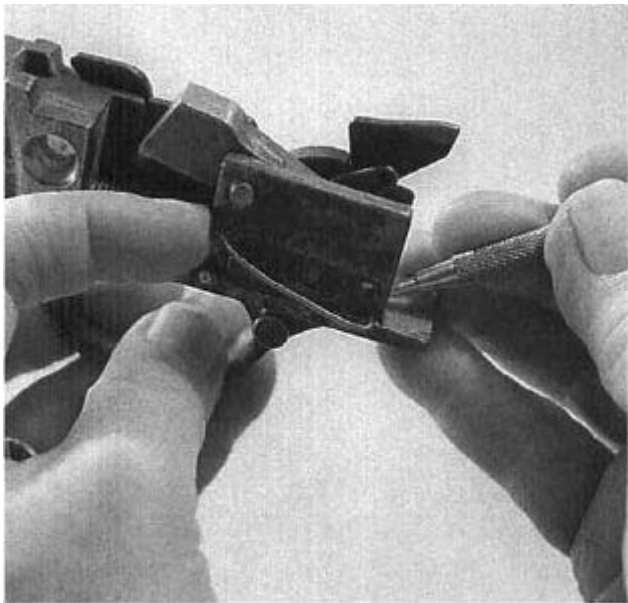
6. Remove the carrier assembly from the right side of the trigger group.





7. The carrier dog ("lifter pawl") and its spring are mounted at the rear of the carrier by riveted pins, and they are not

routinely removed.



8. Use a small tool to nudge the inside tip of the carrier spring

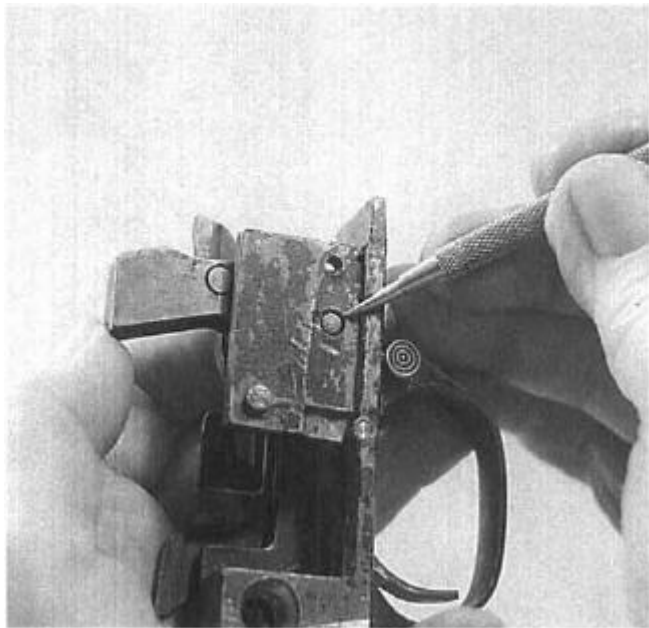
outward for removal.

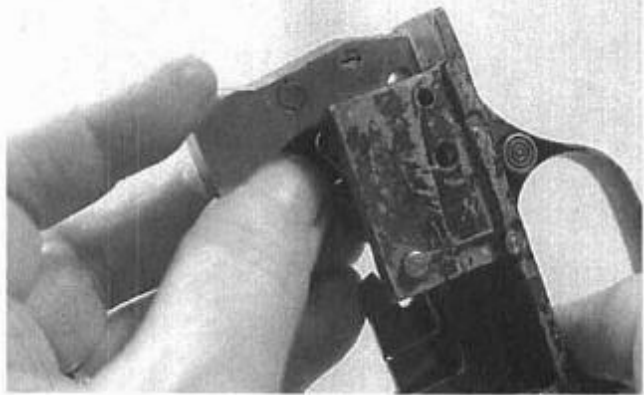
9. Use slim pliers to slightly compress the hammer spring rearward, gripping the front of the guide, and take the spring and guide out upward.



**10.** Push out and remove the hammer pivot pin.







**11.** Depress the trigger to take sear pressure off the hammer. Move the lower part of the

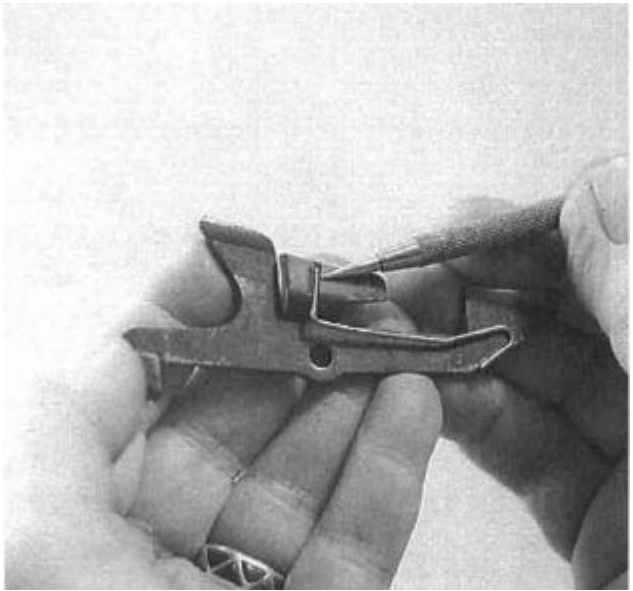
hammer forward, and take care that the lower stud on the left side clears the hook of the bolt latch spring. Remove the hammer toward the front.



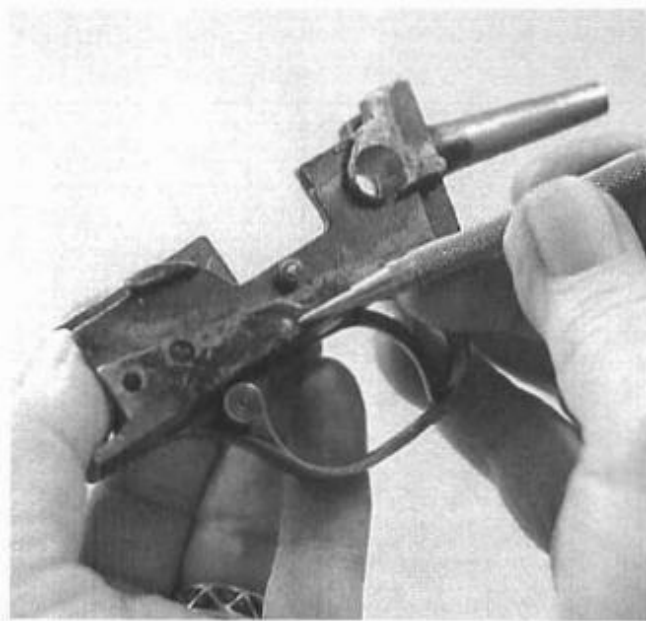
**12.** Lift the bolt latch off its pivot stud on the left side, and tip its top slightly outward (toward

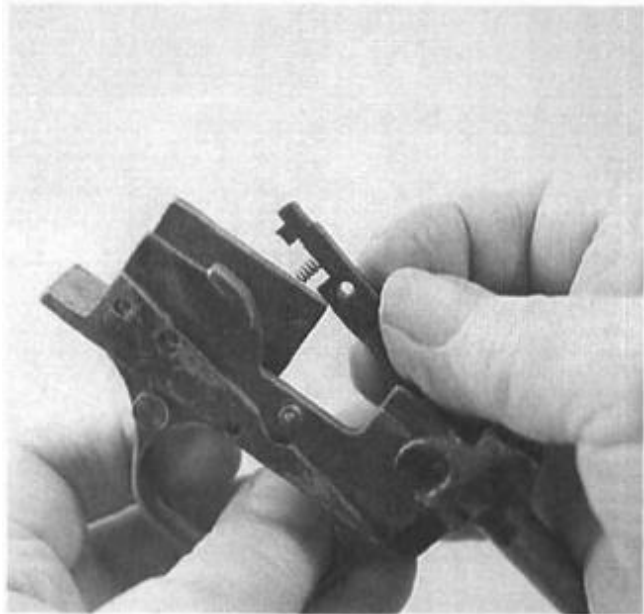
the left) for removal. The latch spring will have to be flexed a bit for this operation, but make it minimal.

- 13.** The bolt latch spring is riveted in place on the latch, and it is removed only for repair purposes.



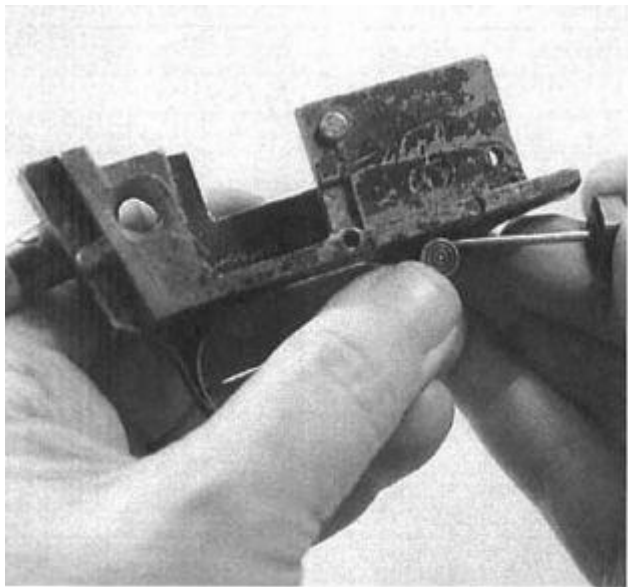
**14.** Drift out the trigger cross pin.





**15.** Remove the trigger upward.  
The coil spring will likely  
come out with it.

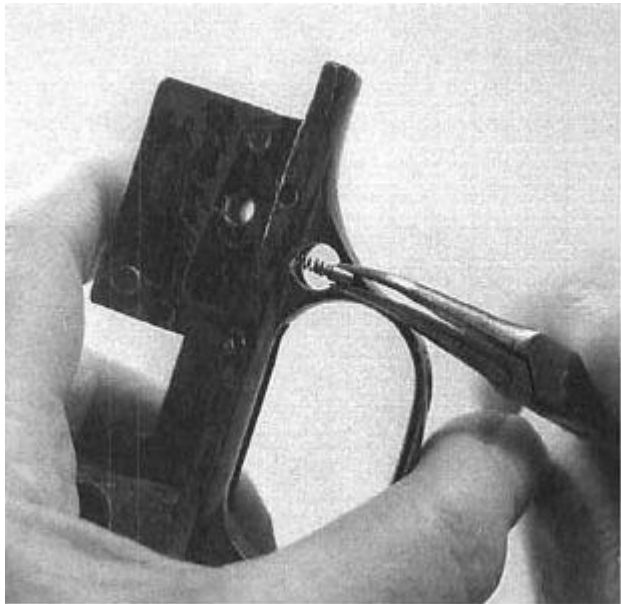




**16.** Insert a sharp tool to depress the safety plunger upward, and push the safety out toward the

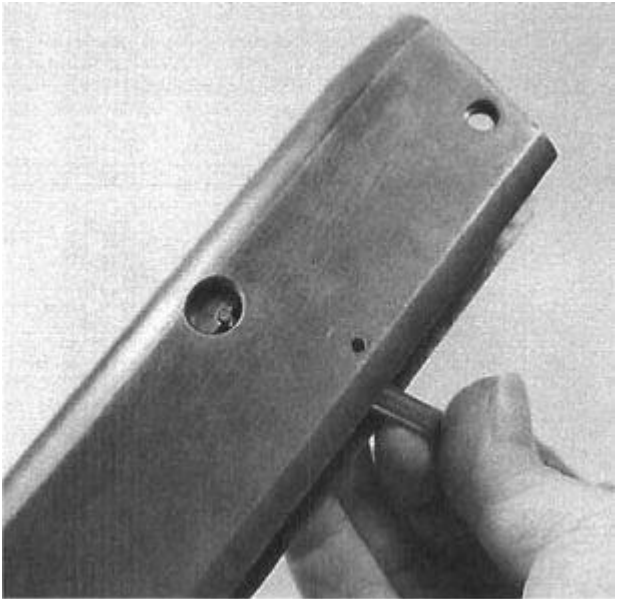
left. Caution: Control the plunger and its coil spring.

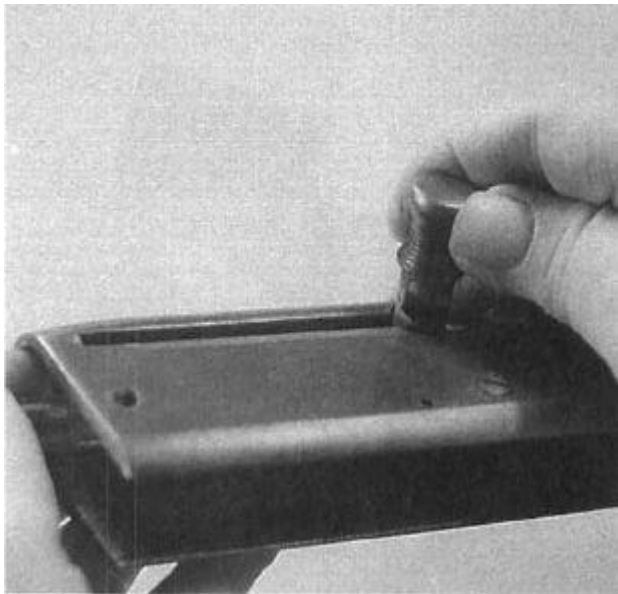
- 17.** Remove the safety plunger and spring. It may be necessary to insert a hooked tool to extract the spring.



- 18.** Move the bolt rearward until the small firing pin stop pin is aligned with the bolt locking hole in the left side of the

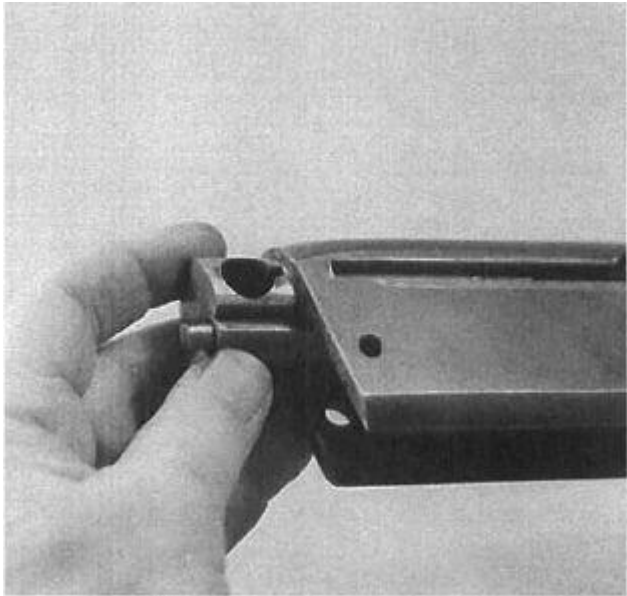
receiver, and use a tool in the pin groove to nudge the pin outward for removal.





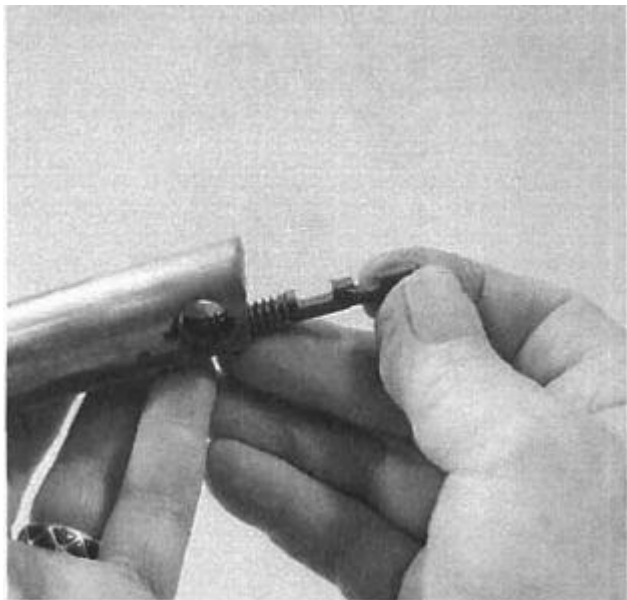
**19.** Move the bolt back to closed position, and push the handle in to locked position. Use a long tool at the rear to push the

firing pin all the way forward, and remove the bolt handle toward the right. You will have to manipulate the tool to clear the handle, and allow it to pass as it is taken out.



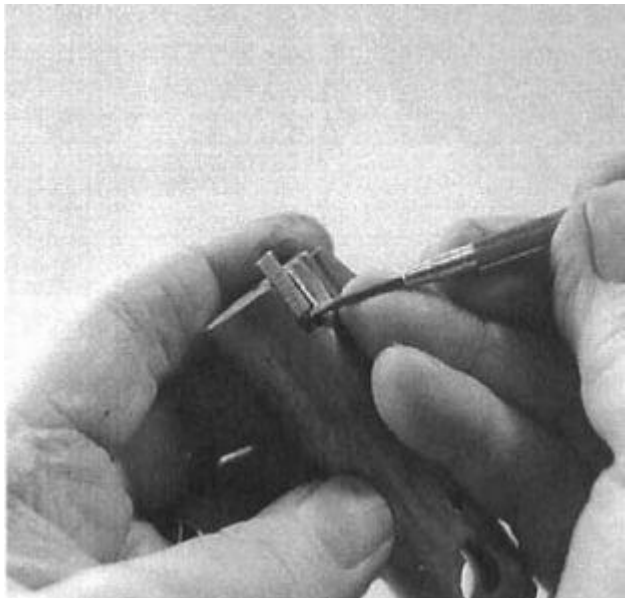
**20.** Remove the bolt toward the rear.

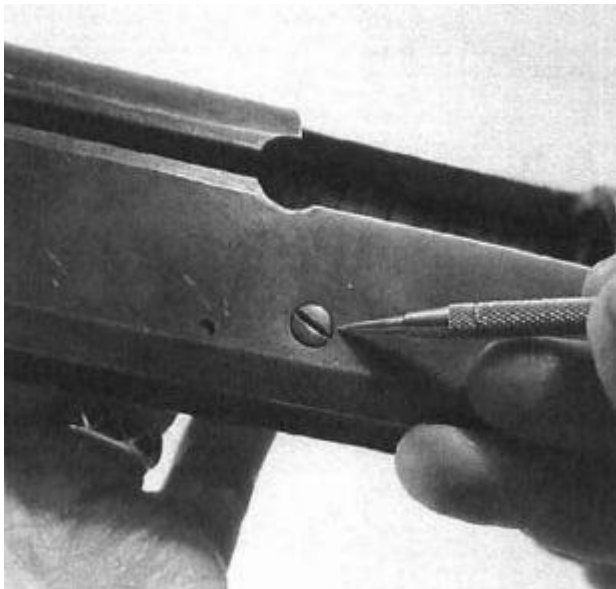
**21.** Remove the firing pin and its spring. It may be necessary to use a hooked tool to extract the firing pin spring.



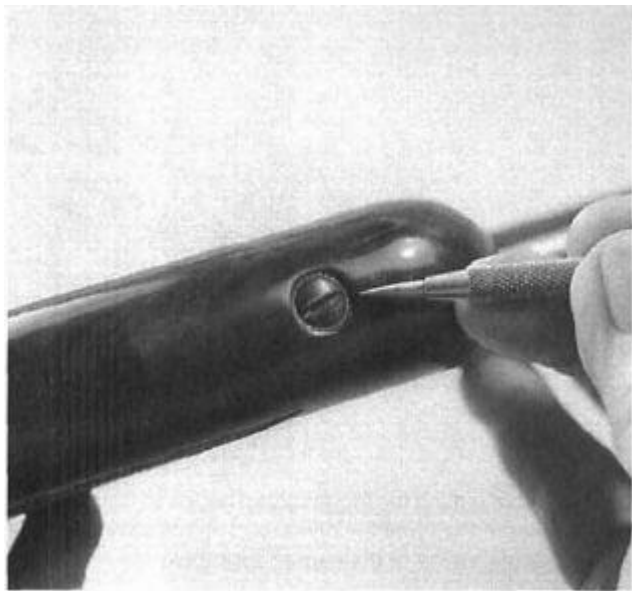


**22.** Insert a sharp tool between the extractor and its plunger, and depress the plunger and spring toward the rear. The extractor can then be lifted out. This operation is best done with the bolt gripped in a padded vise. Caution: Control the plunger and spring. The left extractor is removed in the same way. Note that the extractors and their springs and pins are not identical. If both are removed, keep these parts separate.





**23.** Removal of this screw on the right side of the receiver will allow the shell stop to be taken out from the interior.

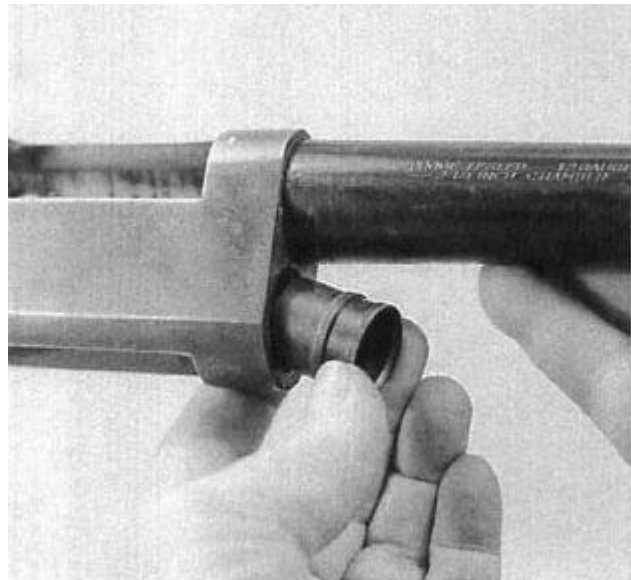


**24.** Remove the screw in the underside of the fore-end.

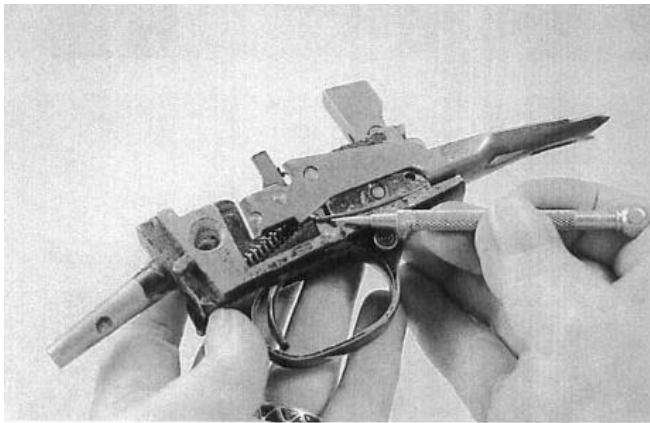
**25.** Tip the forend slightly downward at the front, and remove it forward. The magazine spring is easily taken out. The magazine tube is not routinely removable.



**26.** Remove the magazine follower from the front of the receiver.



# Reassembly Tips:



1. Before putting the trigger group back into the receiver, be sure the tip of the carrier spring properly engages the underside of the carrier, as



shown.

When re-installing the forend and buttstock, the screws should be snug, but avoid over-tightening. Keep in mind that you are dealing with an old and fragile type of plastic. Also, take care not to cross-thread the plug screw.

# **Stevens Model 520**



## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Stevens Model 520 also apply to the following guns:

**Sears "Ranger" Model 31**

**Stevens Model 621**

**Stevens Model 620**

**Data:** Stevens Model  
520

**Origin:** United States

**Manufacturer:** J. Stevens Arms &  
Tool Co.,  
Chicopee Falls,  
Massachusetts

**Gauges:** 12, 16, 20

**Magazine  
capacity:** 5 rounds

<b>Overall length:</b>	48-3/4 inches
<b>Barrel length:</b>	30 inches
<b>Weight:</b>	7-1/2 pounds

The Model 520 was made from 1915 to 1930, and during that time it was also sold by Sears as their Model 31 "Ranger." The gun was designed by John Moses Browning, and many Model 520 barrels have a marking that includes the words "Browning's Patent," a cause of

some confusion. The Stevens Model 620 and Model 621, made from 1927 to 1953, are similar mechanically, and some of the takedown procedures may be applied.

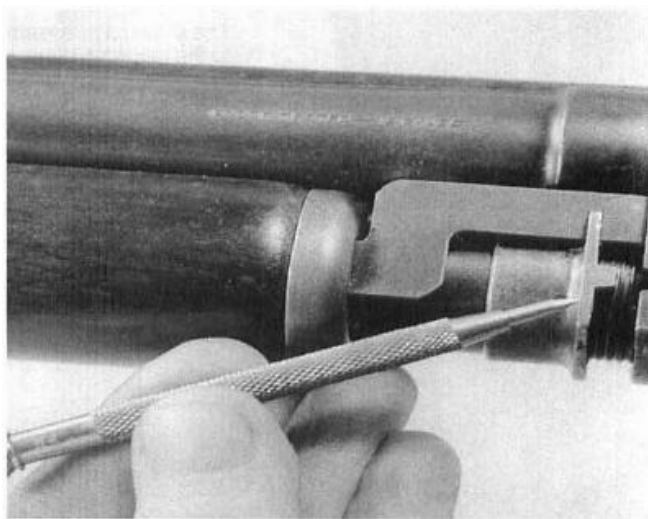
# Disassembly:

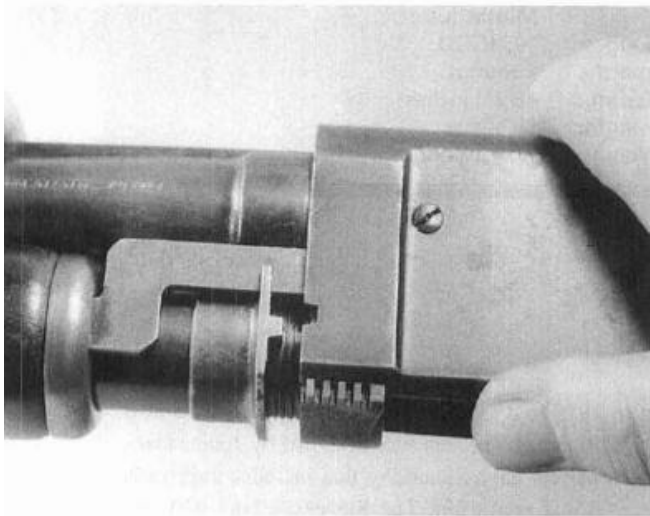
1. Open the action, and using the lengthwise ridges on the magazine tube as a grip, turn the tube clockwise (rear view) until it stops.



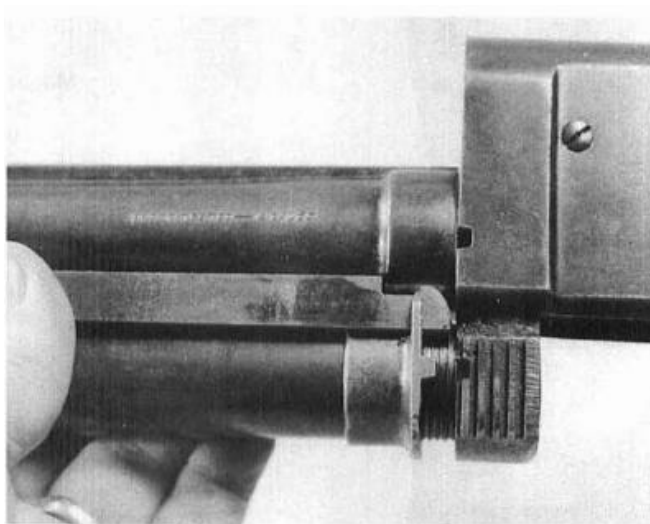
2. When the tube is turned, the tube base at the receiver will move forward to the point shown, withdrawing its side lugs from their recesses in the front of the receiver.







3. Move the barrel and magazine assembly downward to the point shown. It will be stopped by the bar of the action slide.



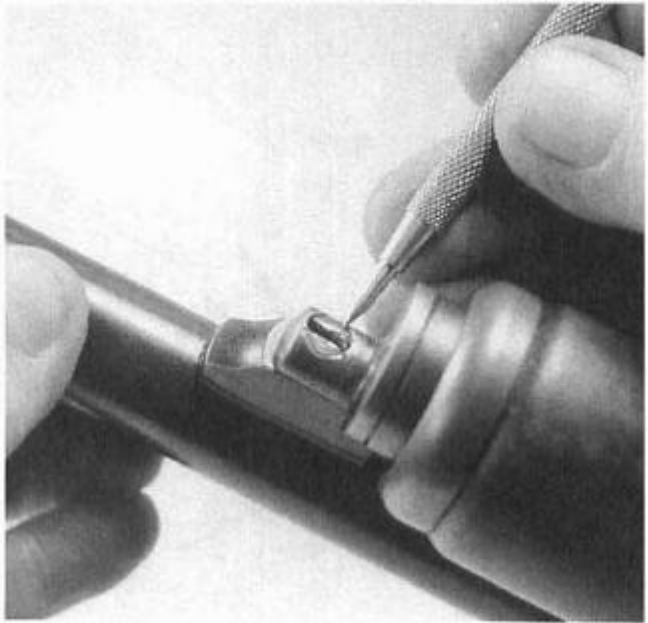
4. Move the action slide all the way forward until it stops, drawing the bar completely out of the receiver. Then, remove the barrel and

magazine  
downward.

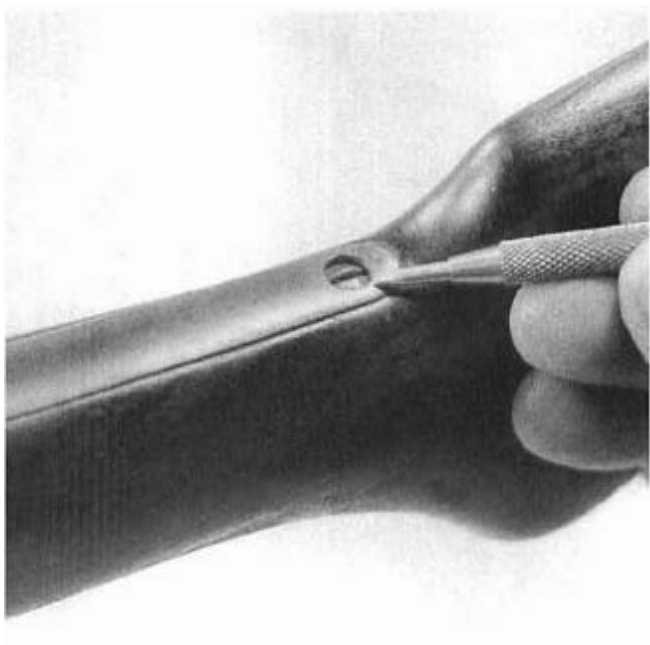
assembly

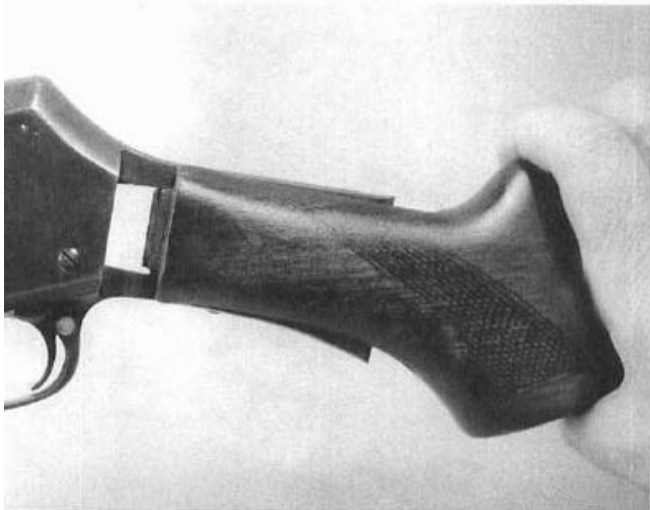
5. A single screw attaches the magazine end piece to a lug on the barrel. Taking out the screw allows removal of the end piece, magazine spring, and the follower. Control the spring as the end piece is taken off. The tube can then be unscrewed from the barrel unit, and the fore-grip is taken off the tube toward the rear. Unscrewing the front cap ring will allow the wood to be removed from the action slide

toward the front.

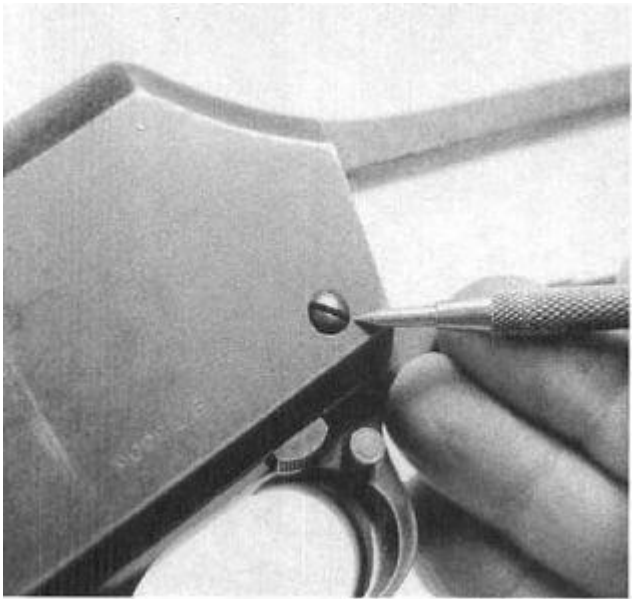


**6.** Remove the stock mounting bolt.





**7.** Take off the buttstock toward the rear.



**8.** Remove the cross screw at the lower rear of the receiver.

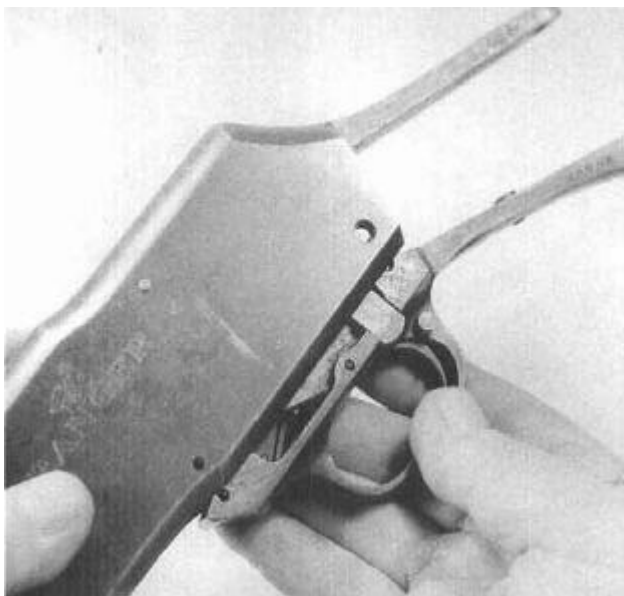


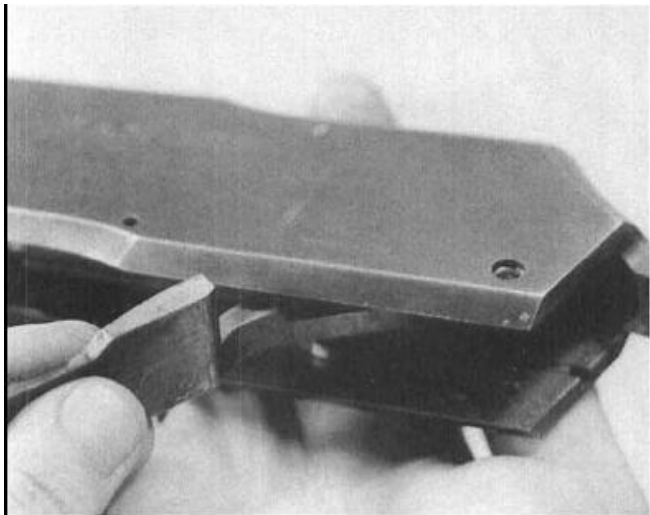
**9.** Drift out the cross pin at the lower edge of the receiver.



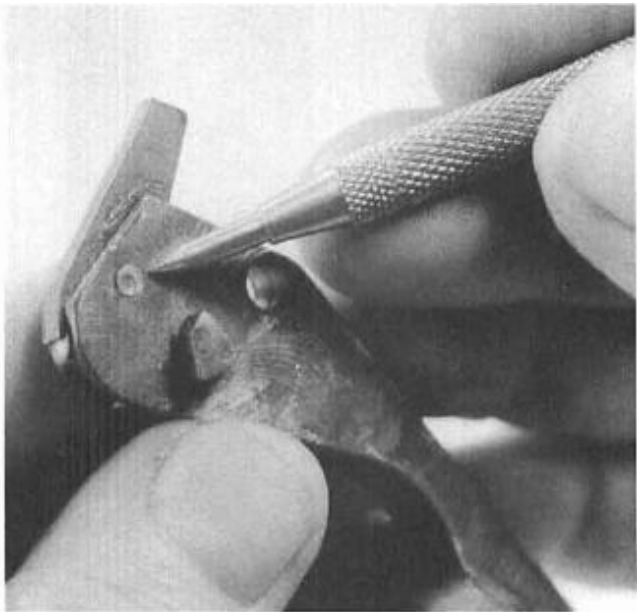
**10.** Remove the trigger group

downward.





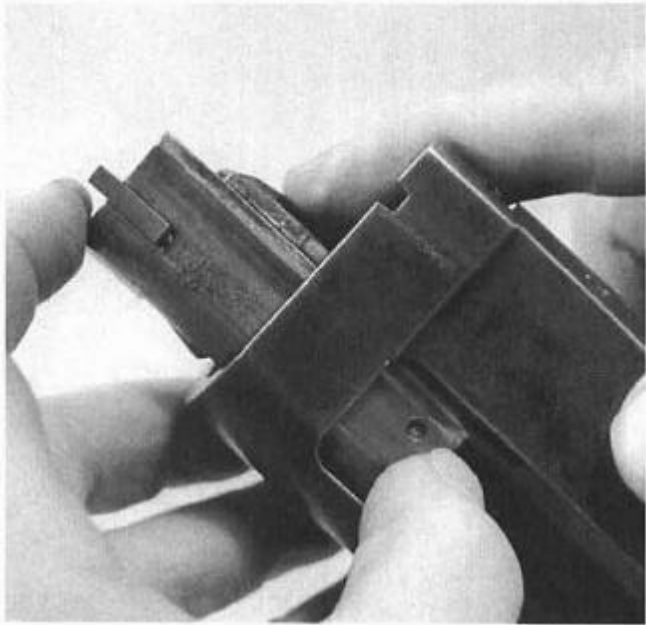
- 11.** Move the boll forward in the receiver. Swing the carrier outward, move it inward off its pivot post, and remove it.



**12.** The carrier dog pivot is a riveted part, and removal should be only for repair purposes. If the pivot pin is

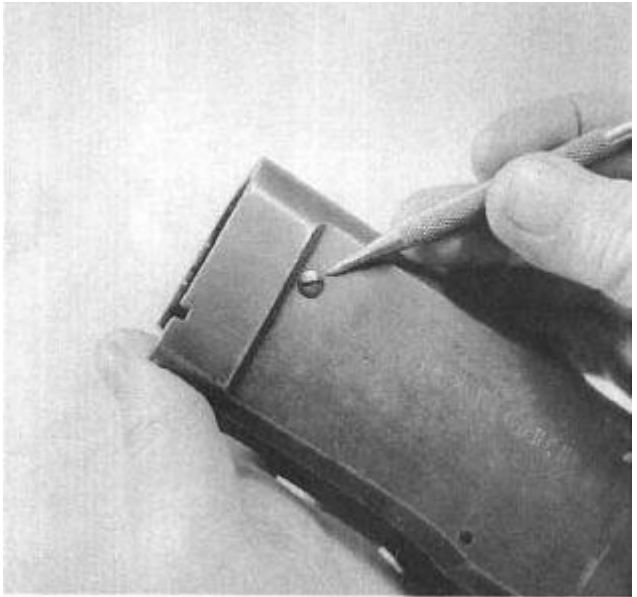
driven out, a plunger and spring will be released.

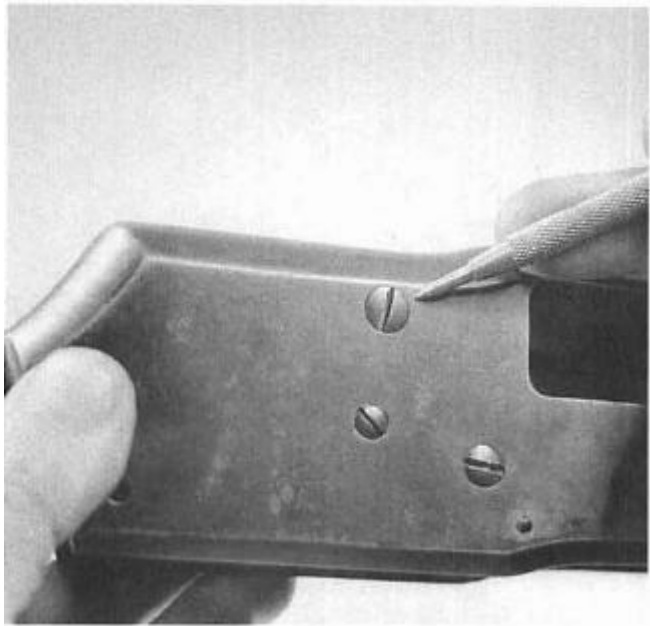
- 13.** Keep the bolt slide plate pushed rearward, and push the bolt forward out of the receiver.



**14.** In some guns, it may be necessary to remove the bolt stop screw before the bolt can

be taken out. It depends on the degree of wear.

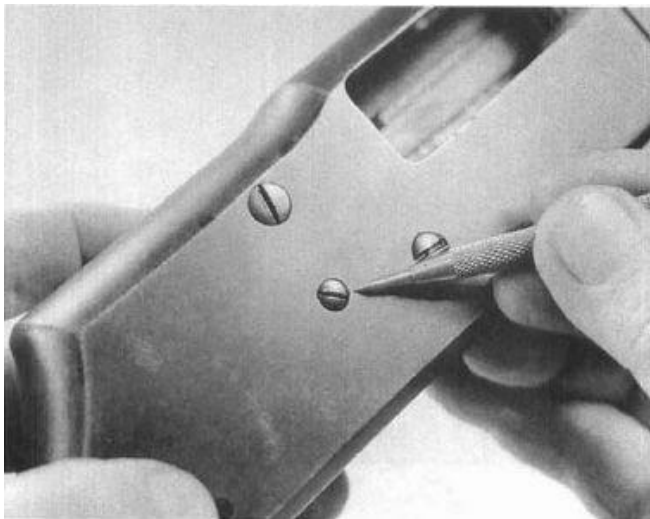




- 15.** Remove the access screw on the right side at the rear of the ejection port, and take out the



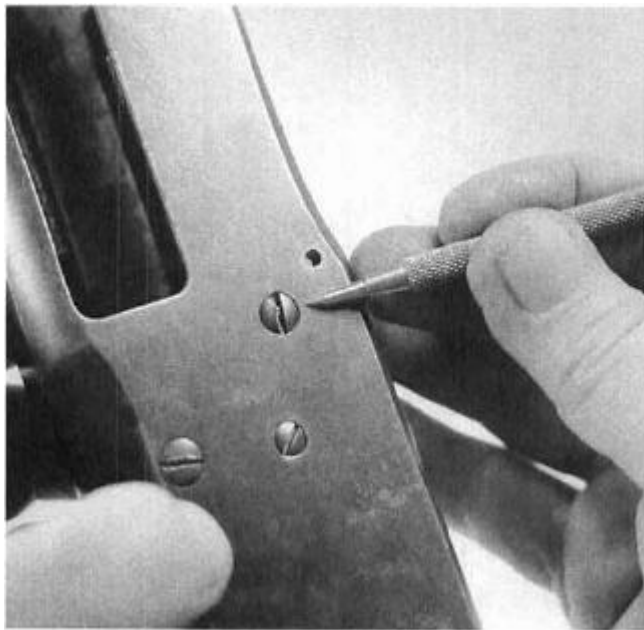
screw inside the left wall that retains the ejector. Remove the ejector.



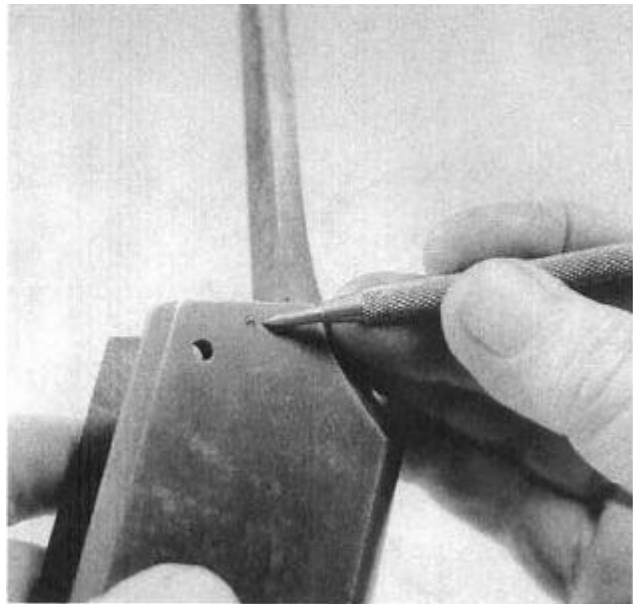
**16.** This is the pivot post screw for the carrier. There is no

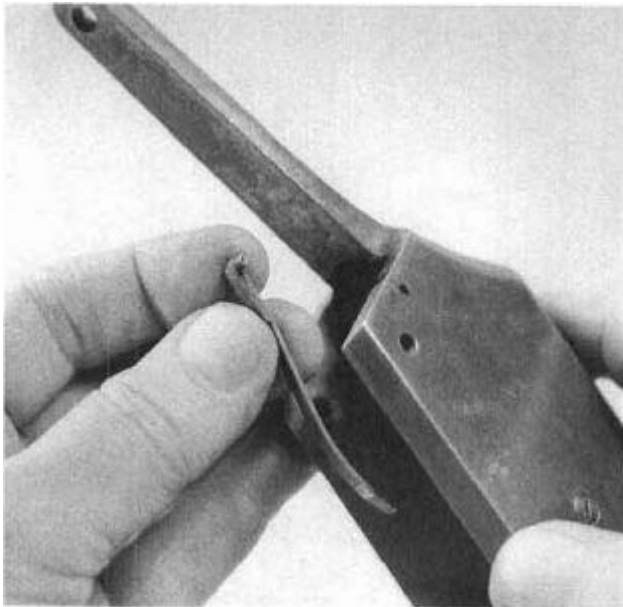
need to remove it in normal takedown.

- 17.** This screw retains the shell stop on the inside of the receiver. It is often staked in place, and should be removed only for repair purposes.

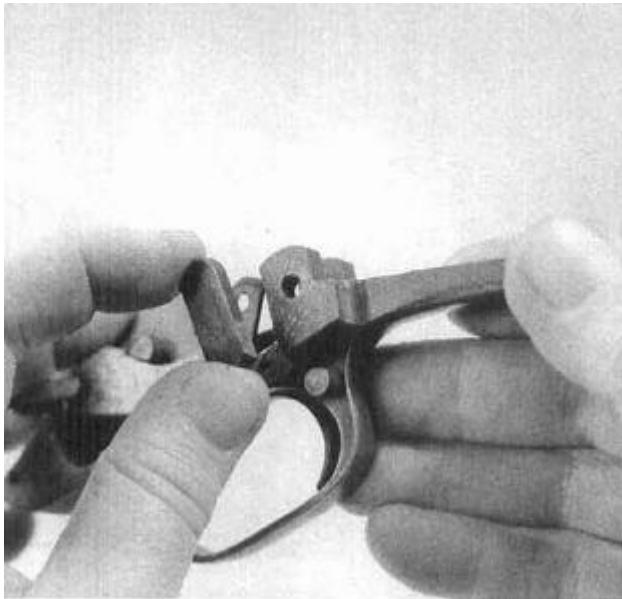


**18.** Push the mounting post of the carrier spring inward.



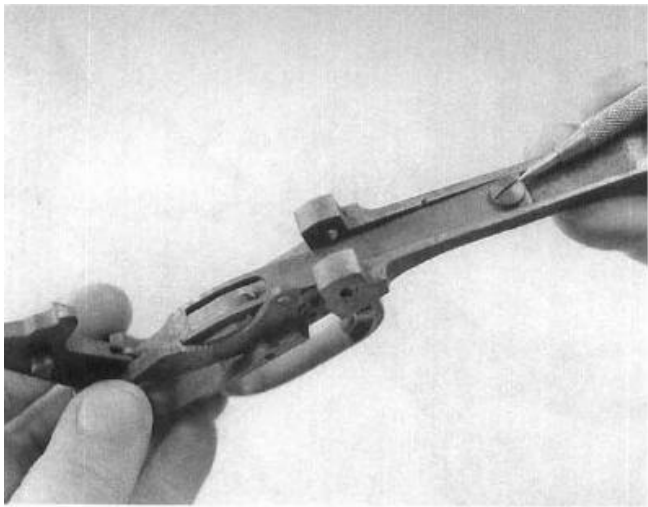


**19.** Remove the carrier spring from inside the receiver.



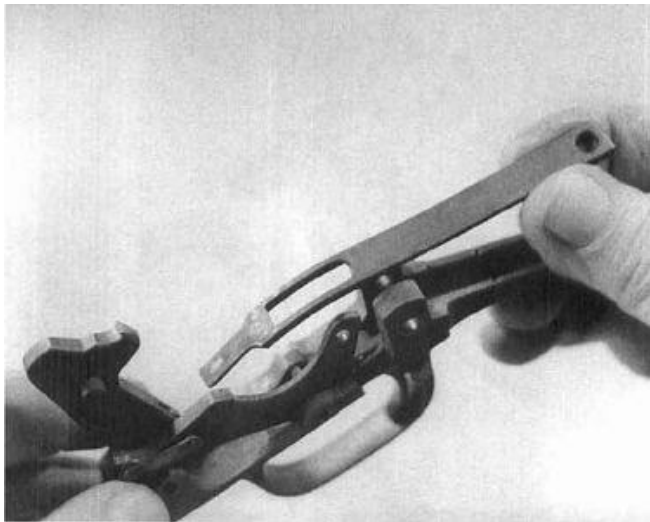
**20.** Lift the carrier latch button out of its recess in the trigger group.

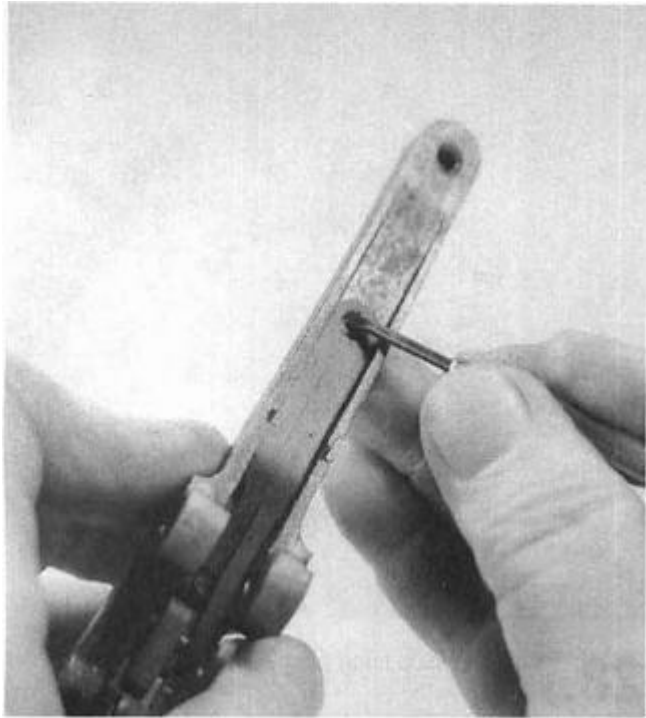
**21.** Depress the carrier latch at the front to free the hammer. Restrain the hammer, pull the trigger, and ease the hammer down to (onward position. Remove the hammer spring screw.



**22.** Remove the hammer spring.

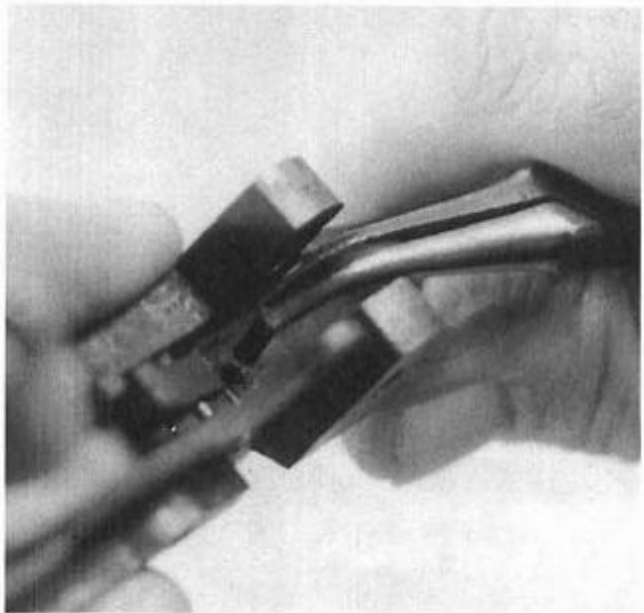






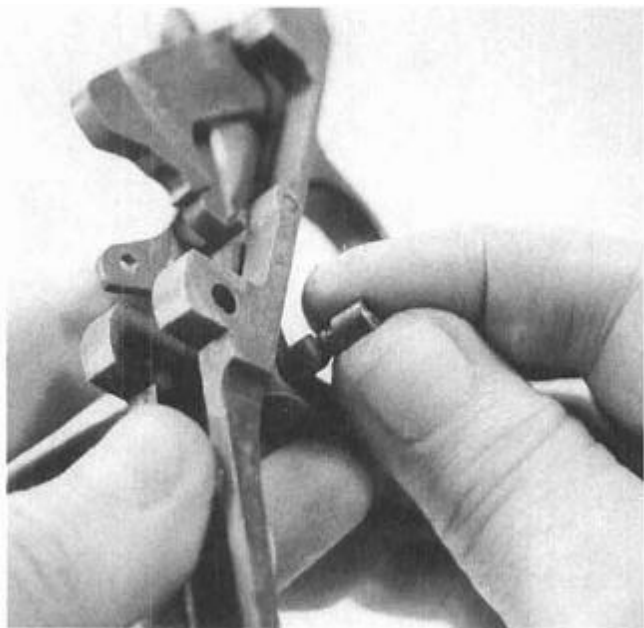
**23.** Use a too] to slide the

combination slide latch and safety spring rearward. The spring has side wings that are in a slanted track on each side, and it is removed upward and toward the rear.

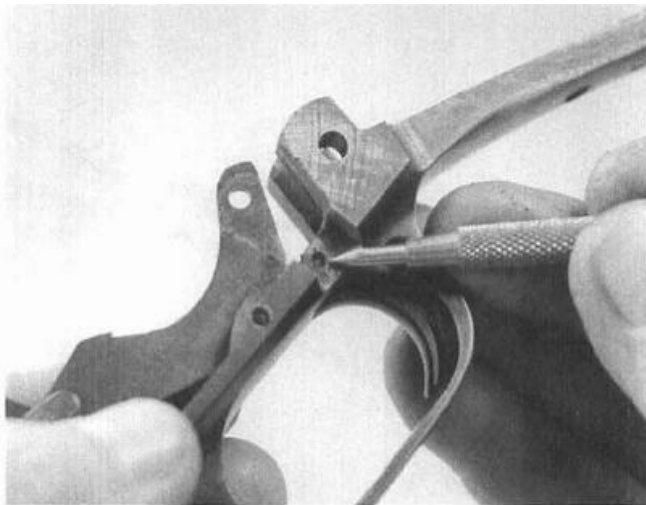


**24.** With the safety in mid-position, remove the safety plunger upward.

**25.** Remove the safety button.

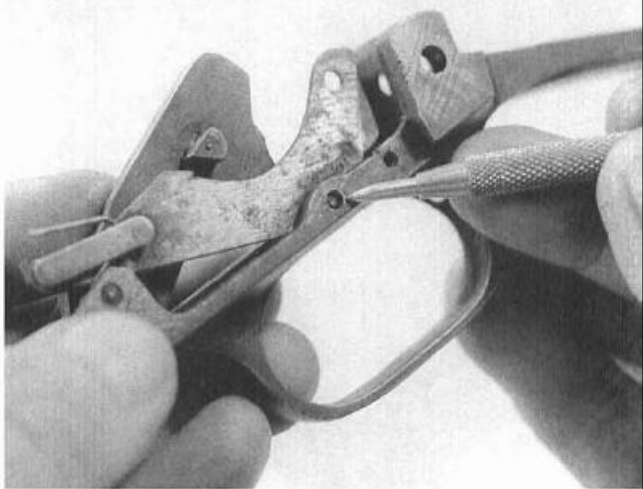


**26.** Drift out the trigger pin toward the right.





**27.** Remove the trigger upward.

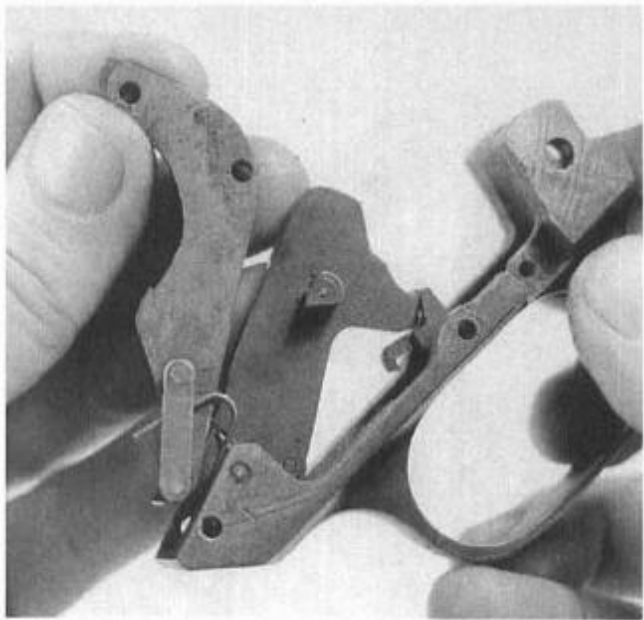


**28.** Drift the slide latch pin halfway to the right.

**29.** Lift the slide latch upward at the rear, unhook it from the

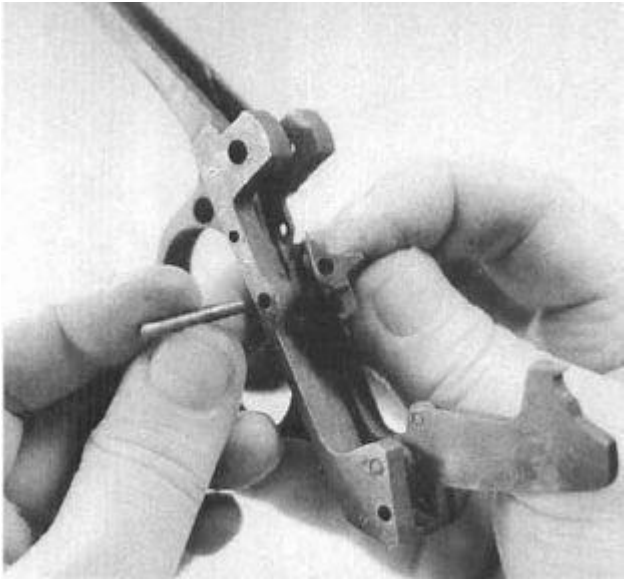


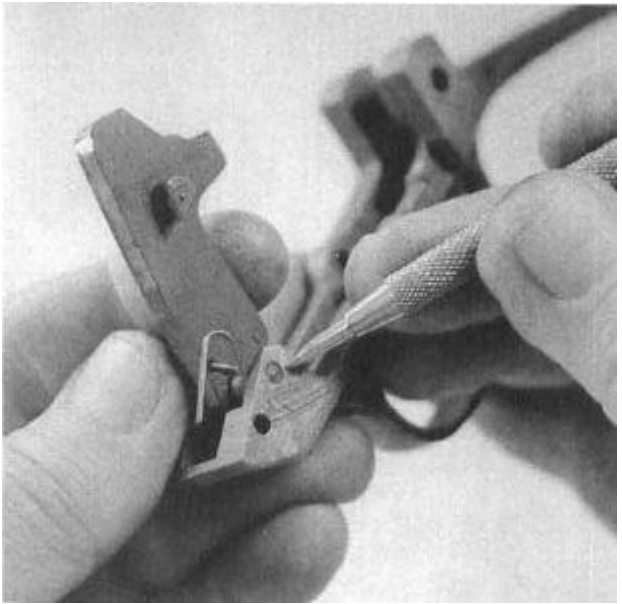
trip spring at the front, and remove it.



**30.** Remove the cross pin, and take

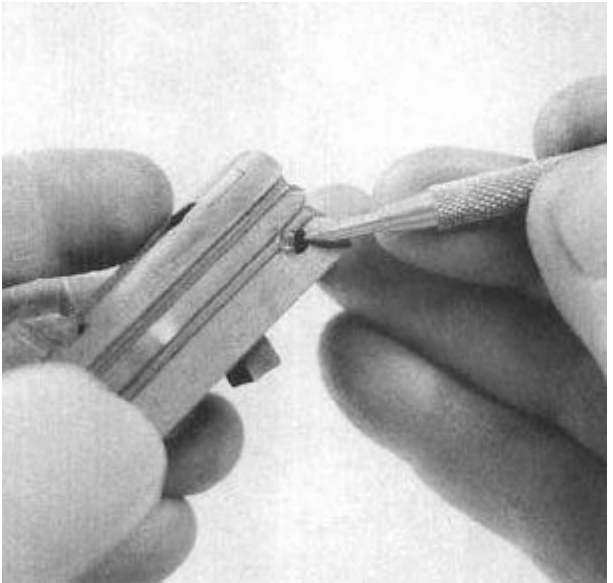
out the sear and its torsion spring. The spring is easily detachable from the center of the sear.





**31.** Drift out the hammer pivot toward the right, and remove the hammer and trip spring. A small spacer sleeve will also

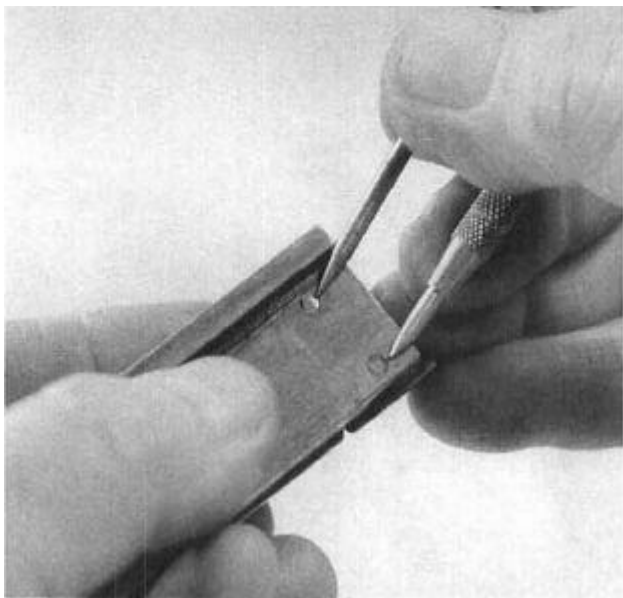
be released on the right side of the hammer. Be sure it isn't lost.



**32.** The firing pin is retained by a cross pin at the rear of the bolt, and the firing pin is taken out rearward. The retaining pin is driven out toward the right. Removal of the firing pin will allow the locking block to be taken out upward.

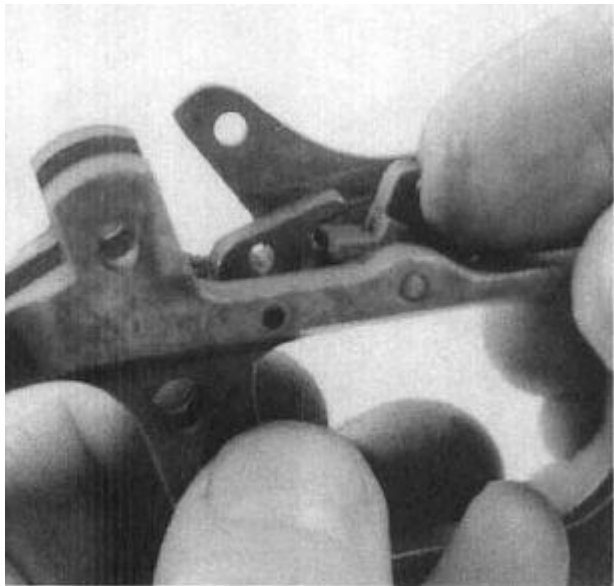
**33.** The extractors are retained by vertical pins, and the pins are drifted out downward. The right ex-tractor has a lengthwise plunger and a strong spring, so control the spring and plunger as the

extractor is taken out.

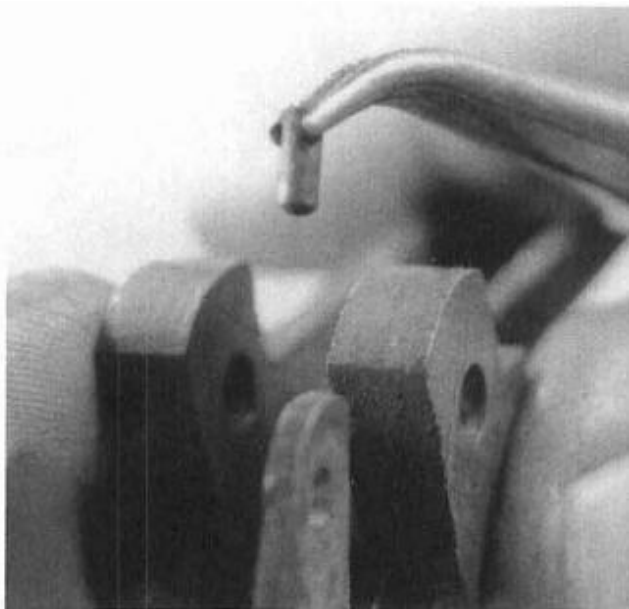


# Reassembly Tips:

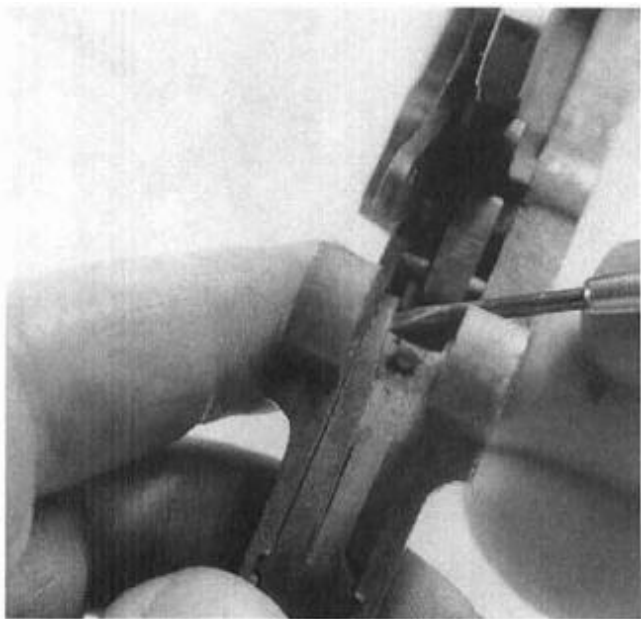
1. When the trigger is reinstalled, the sear must be lifted to engage the front projection of the trigger, as shown.







2. When replacing the safety plunger, be sure the rounded end is downward, toward the safety.



- 3.** As the combination slide latch and safety spring is pushed back into its slanted retaining

tracks, it will be necessary to use a tool to lift its longer arm to clear the trigger and engage the shelf on the slide latch. This also applies when the shorter arm reaches the safety plunger.

# **Stevens Model 9478**



## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Stevens Model 9478 also apply to the following guns:

**Sears Model 101.51 0660**

**Stevens Model 9478Y**

**Data:** Stevens Model  
9478

**Origin:** United States

**Manufacturer:** Savage Arms  
Corporation  
Westfield,  
Massachusetts

**Gauges:** 10, 12, 20 and 410

**Overall  
length:** 42 to 52 inches

**Barrel length:** 26 to 36 inches

**Weight:** 6-1/4 to 9-  
1/2pounds

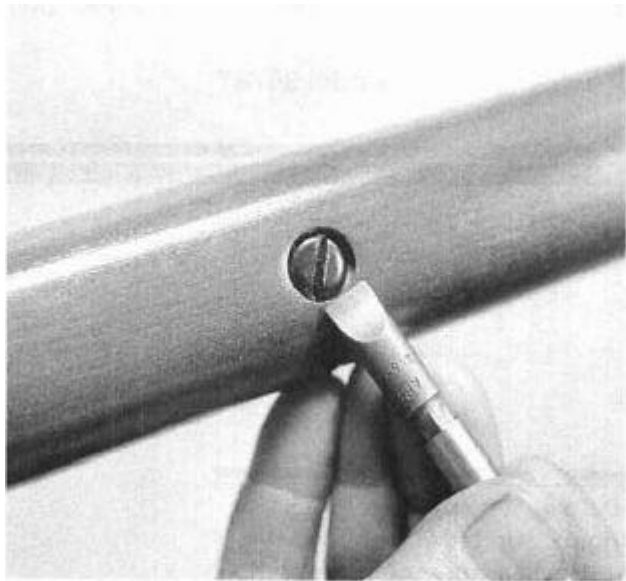
The economy single barrel of the Savage-Stevens line, the Model was introduced in **1978**, and was discontinued in Its main design departure from the venerable Model 94 is in the barrel latching system, which has a plastic-knobbed lever set into the front of the trigger guard, rather than the traditional top-tang type. A youth model

was also offered, with shorter stock and barrel, having identical mechanical details.

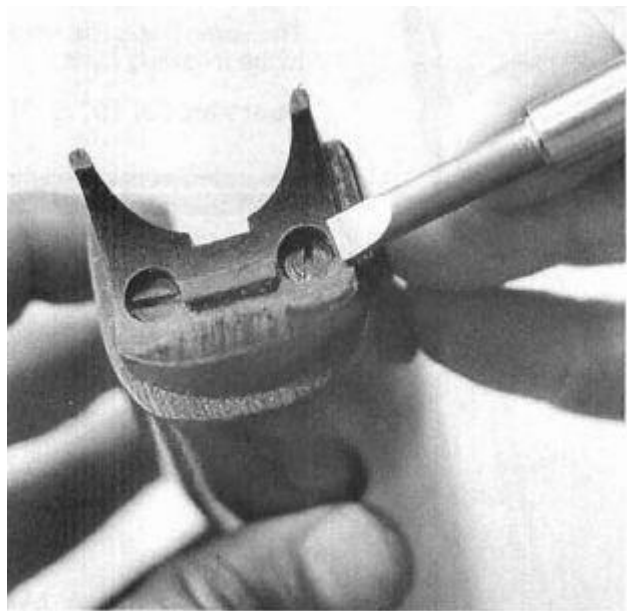


# Disassembly:

1. Remove the large screw on the underside of the forend, and take off the forend downward and toward the front.



- 2.** Removal of the two screws at the rear of the forend will allow the forend spacer to be taken off toward the rear.



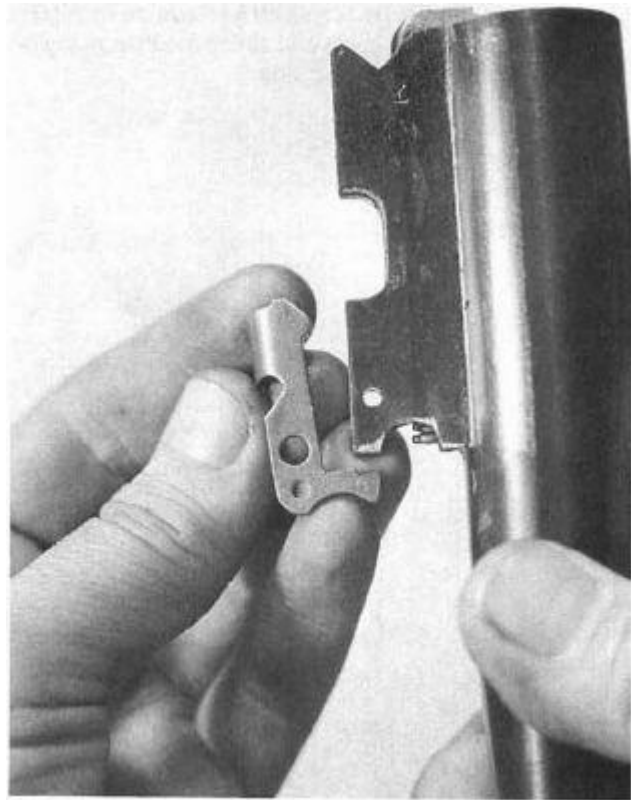


**3.** Operate the barrel latch, tip the

barrel unit downward beyond its usual opened position, and remove the barrel upward.

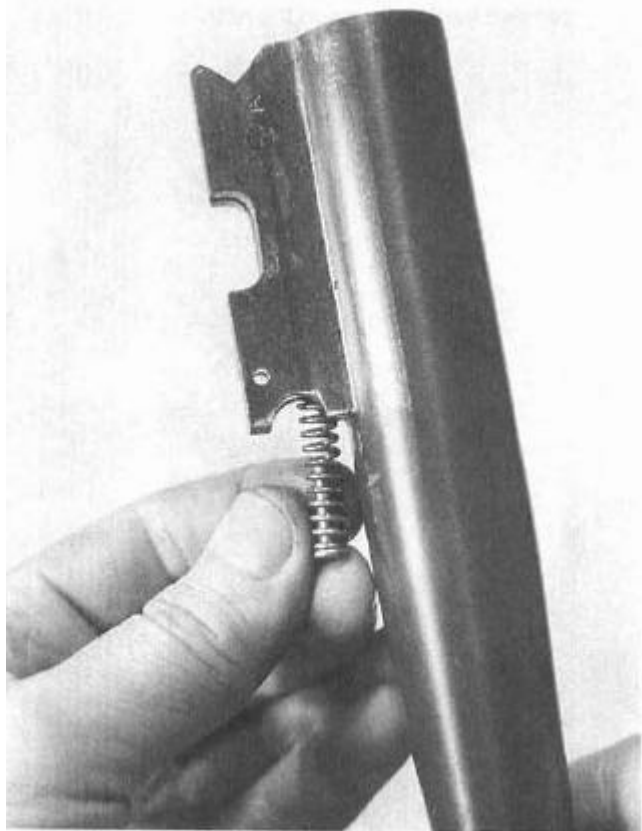


- 4.** Drift out the cross pin at the lower front of the barrel underlug, toward the left.
  
- 5.** Remove the ejector latch downward and toward the front.



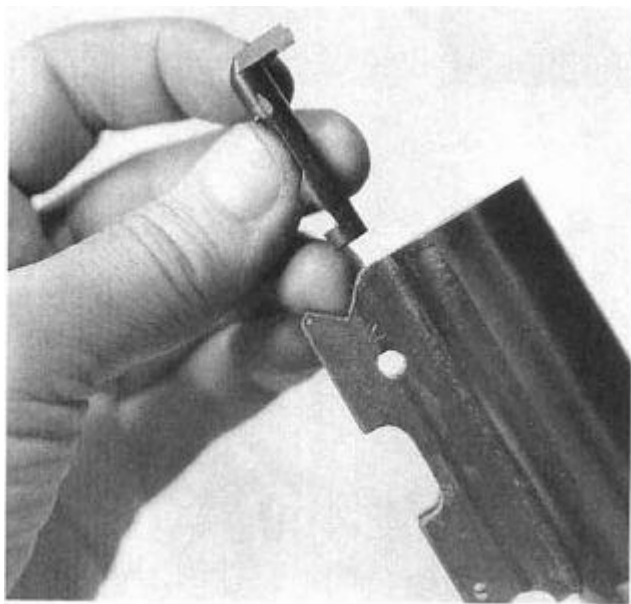
6. Remove the ejector spring and plunger toward the front.







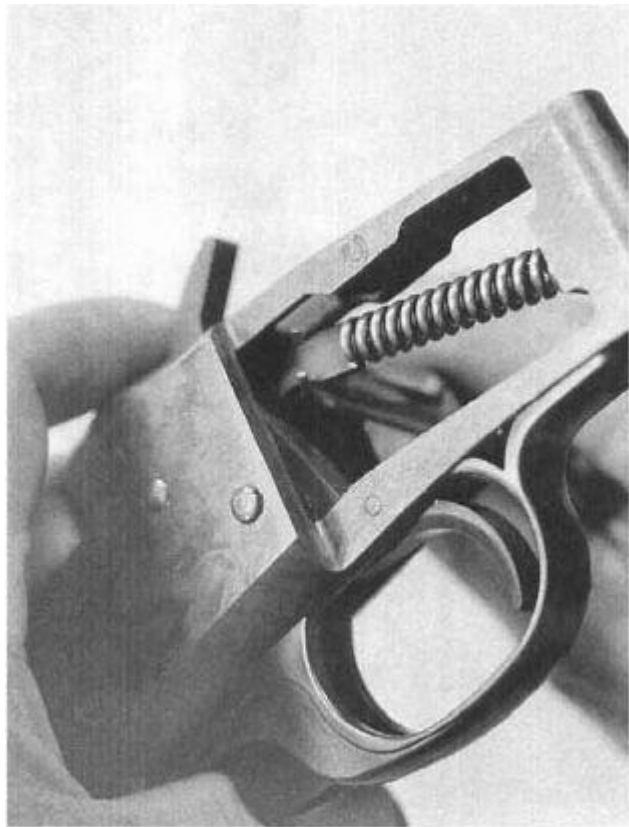
7. Drift out the large cross pin at the rear of the barrel underlug, toward the left.



8. Remove the ejector toward the rear.
9. Remove the buttplate, and use a B-Square stock tool or a long-shanked screwdriver to back out the stock bolt. Take out the stock bolt and lock washer, and remove the stock toward the rear.



**10.** Grip the forward neck of the hammer spring guide with sharp-nosed pliers, and move the front of the guide upward, out of its recess in the back of the hammer. This will completely relieve the spring tension, and the guide and spring are then easily removed toward either side.

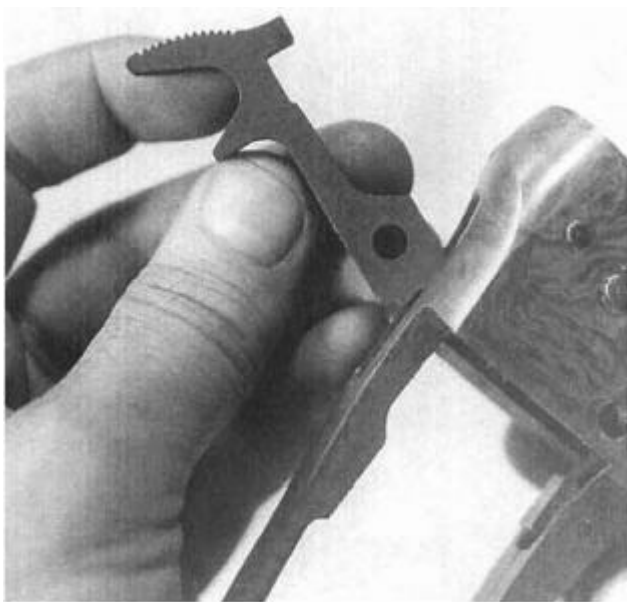




**11.** Drift out the hammer cross pin

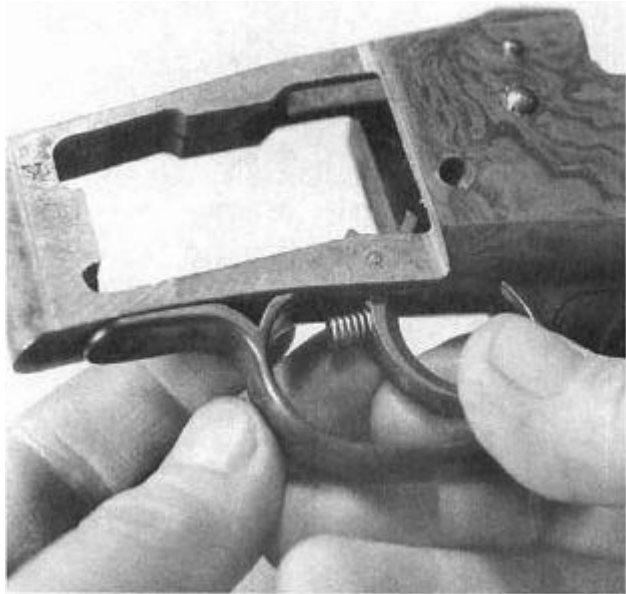


toward the left.



**12.** Remove the hammer upward.

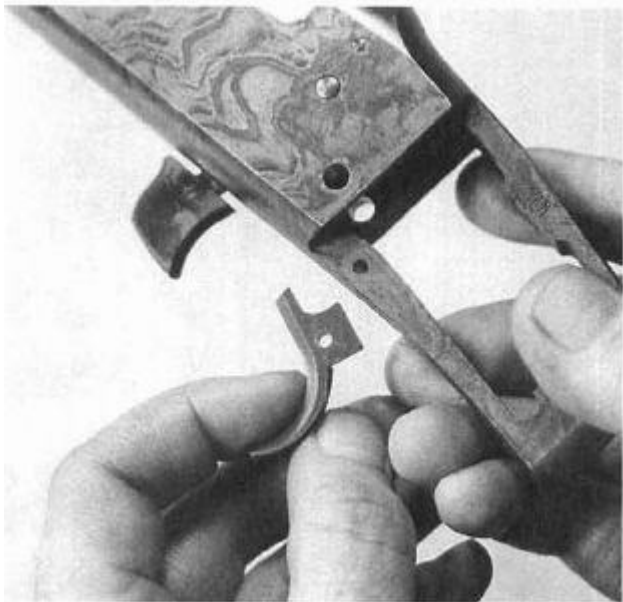
**13 .** Note that when the hammer is removed, the trigger is free to pivot forward beyond its normal position, and the trigger spring can be removed at this time.



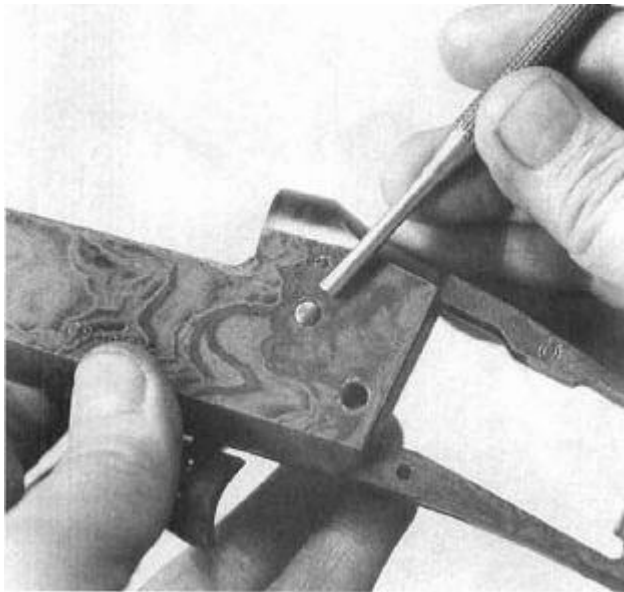
- 14.** Remove the vertical screw at the front of the trigger guard. Remove the vertical screw at the rear of the trigger guard,

and remove the trigger guard  
downward.



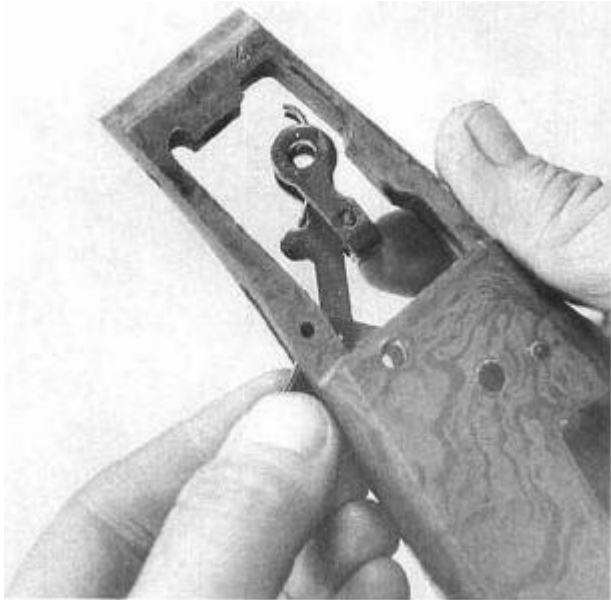


**15.** Drift out the trigger pivot pin toward the left, and remove the trigger downward.



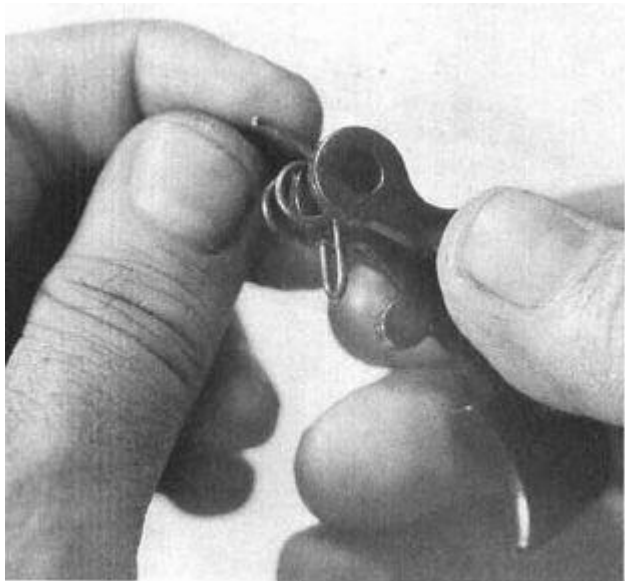
**16.** Drift out the barrel latch cross pin toward the left.

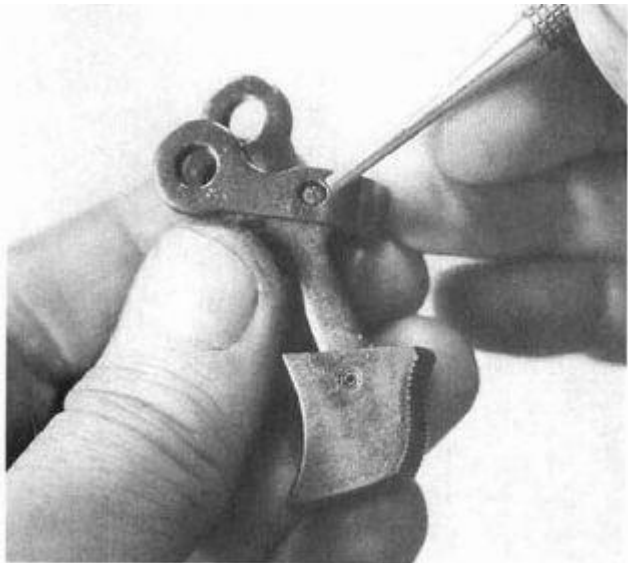
**17.** Move the barrel latch assembly toward the rear, bringing the operating handle up into the interior of the receiver, then take out the assembly toward the side.



**18.** The barrel latch lever spring is easily detached from the upper loops of the latch piece.

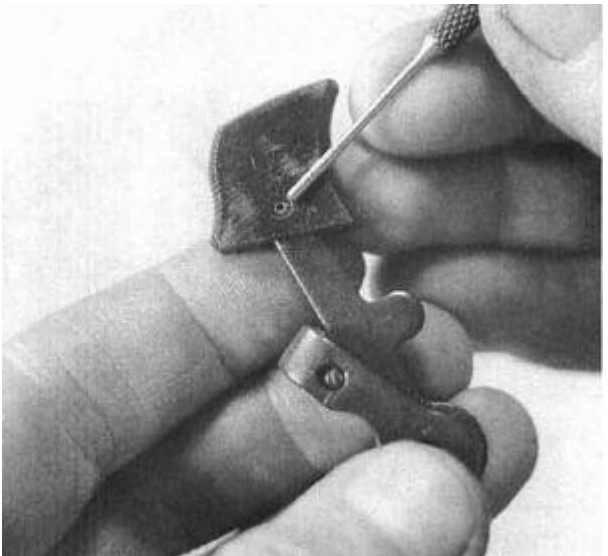






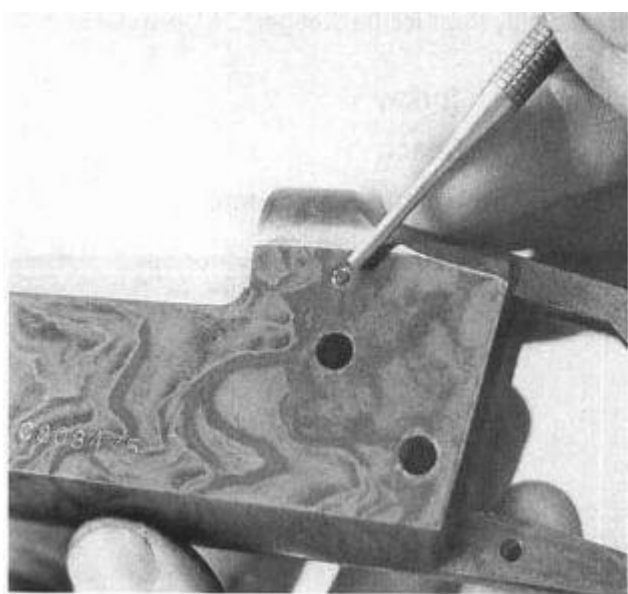
**19.** Drifting out the cross pin in the barrel latch will allow the latch lever to be separated from the latch piece. Note that this pin is semi-riveted in

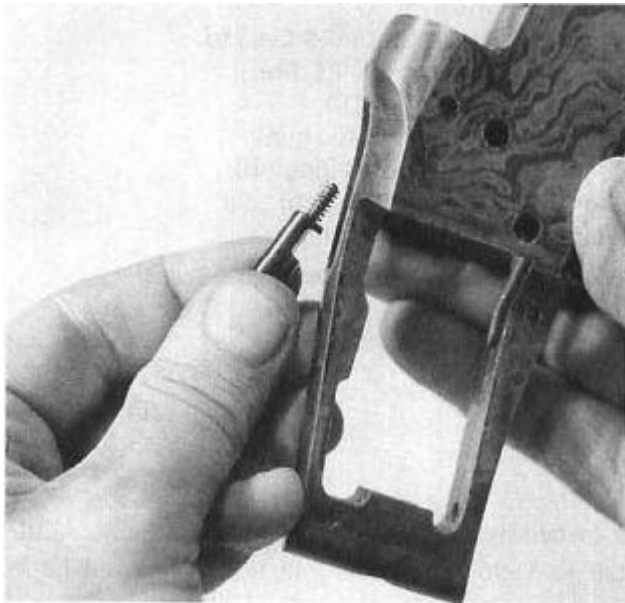
place, and its removal is not advisable unless necessary for repair. If it must be removed, take care not to deform the upper loops of the latch piece.



**20.** Drifting out the roll pin in the barrel latch knob will allow the knob to be detached from the lever. The handle is plastic, so use extreme care to avoid cracking it during removal of the pin.

**21.** Drift out the small cross pin at the top of the receiver.

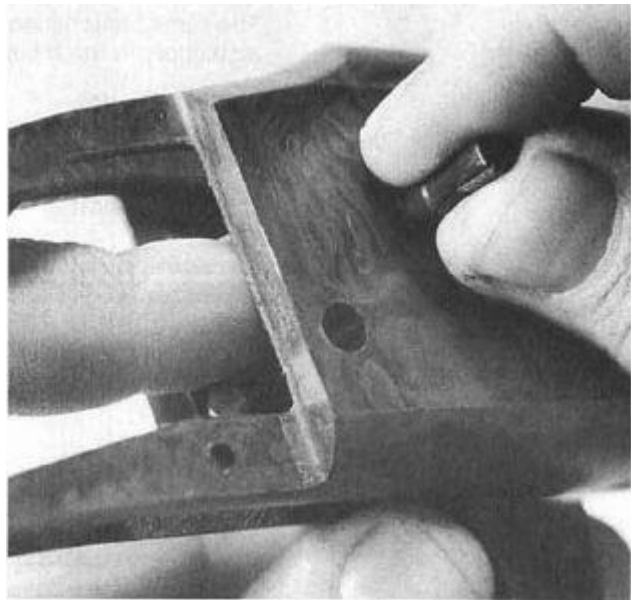




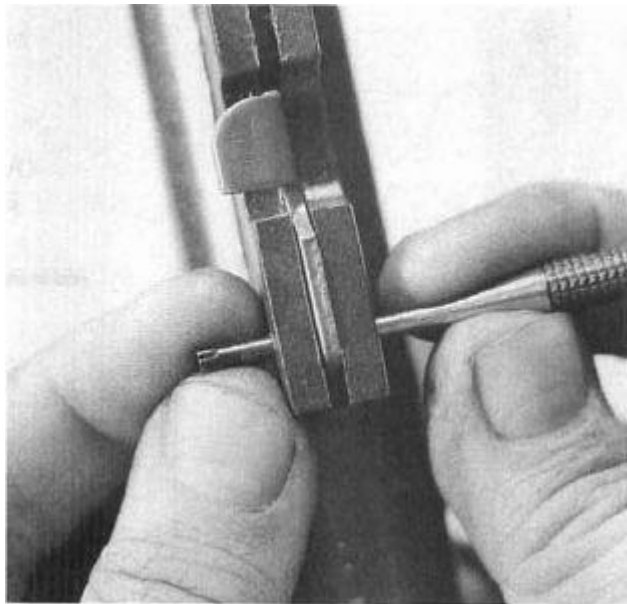
**22.** Remove the firing pin and its return spring toward the rear.

# Reassembly Tips:

1. When replacing the barrel latch assembly, insert a fingertip inside the receiver to align the latch, lever, and spring for passage of the cross pin. With slight pressure against the rear of the assembly, this can be done with little difficulty. If there is any problem, such as an overly strong spring, a slave pin can be used.







- 2.** Use a tool at the front to press the ejector catch toward the rear until its hole is aligned with the cross pin hole in the

barrel underlug. Insert a rod or drift punch to hold the latch in place for insertion of the cross pin.

**Stoeger IGA**

**Uplander English**



## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Stoeger IGA Uplander English also apply to the following guns:

**Ladies Model**

**Youth**

**Deluxe Coach**

**Turkey**

**Coach**

**Uplander Supreme**

<b>Data:</b>	Stoeger IGA Uplander English
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Origin:	Brazil
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Manufacturer:	E.R. Amantino & Cia, Ltd. Veranopolis, RS, Brazil
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Gauges:	12, 20 and 410 (others in basic gun)
Overall length:	40-1/4 inches (English)
Barrel length:	24 inches (English)
Weight:	6 to 6-3/4 pounds

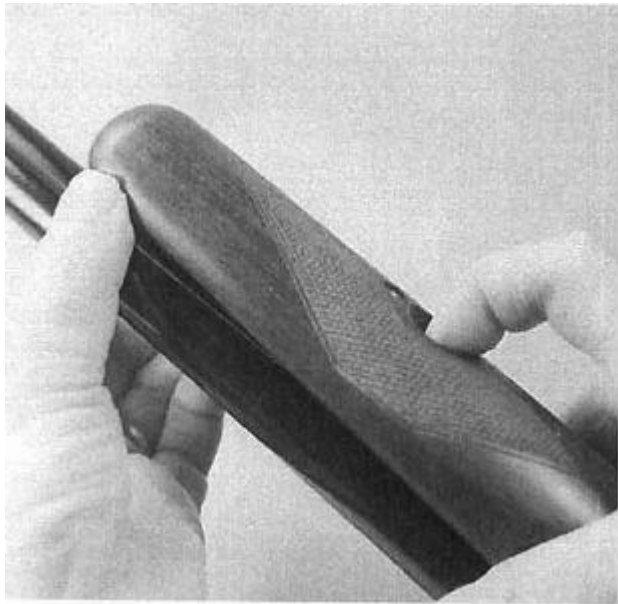
The Stoeger Company (now owned by Beretta) began importing the nice little Uplander double from Brazil in 1996. The basic gun is also offered in 28 gauge, and in a larger 12-gauge version.

All are mechanically the same, and the instructions will apply.

# Disassembly:

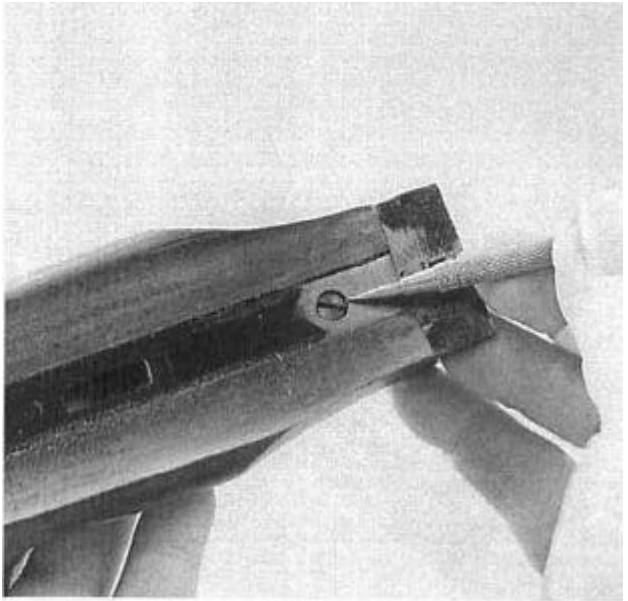
1. Open and close the barrel unit, to cock the internal hammers. The manual safety will automatically move to on-safe position. Push the forend latch rearward, and tip the forend away from the barrels for removal. Open the barrel unit and remove it upward.

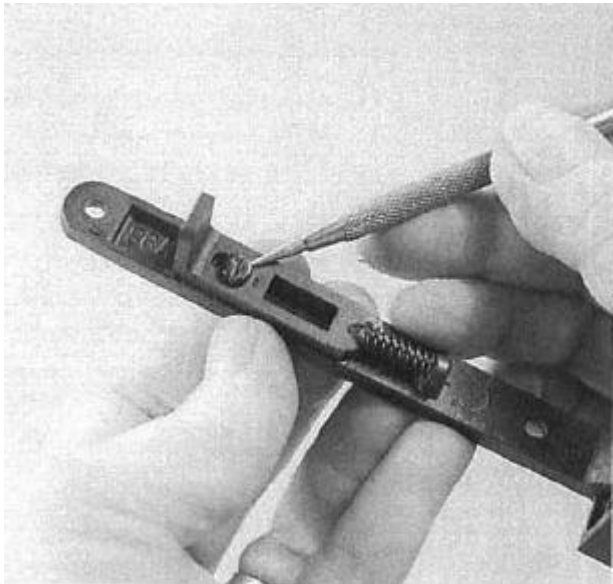




- 2.** Remove the two screws on the inside of the forend that retain the forend iron, and remove the iron from the wood. Note

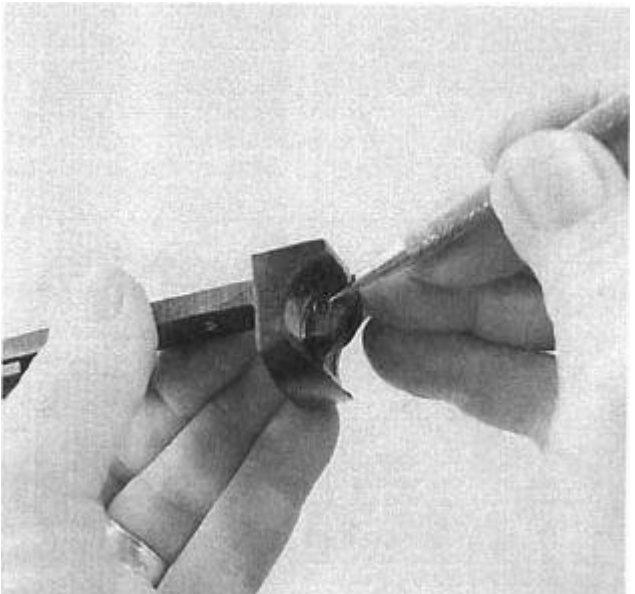
that the two screws are of different lengths.





**3.** The forend latch is retained by a single screw. Note that this screw is not snug, as space must be left for latch

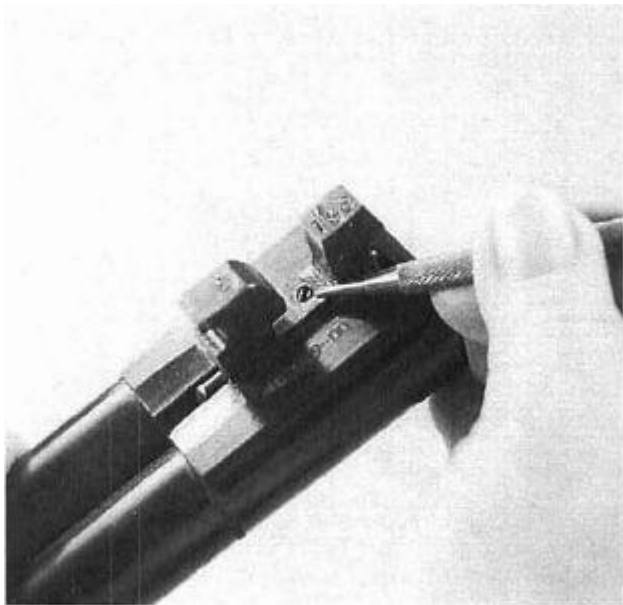
movement.



4. The ejector cam lever is pivoted and retained at the rear of the

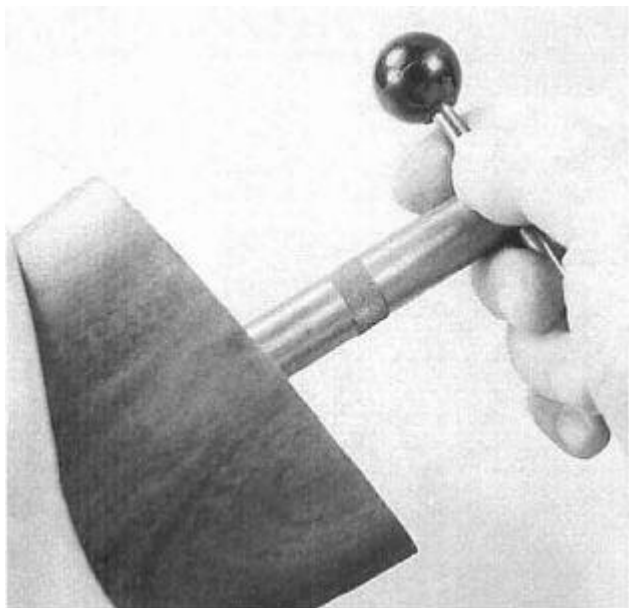
forend iron by a cross pin.

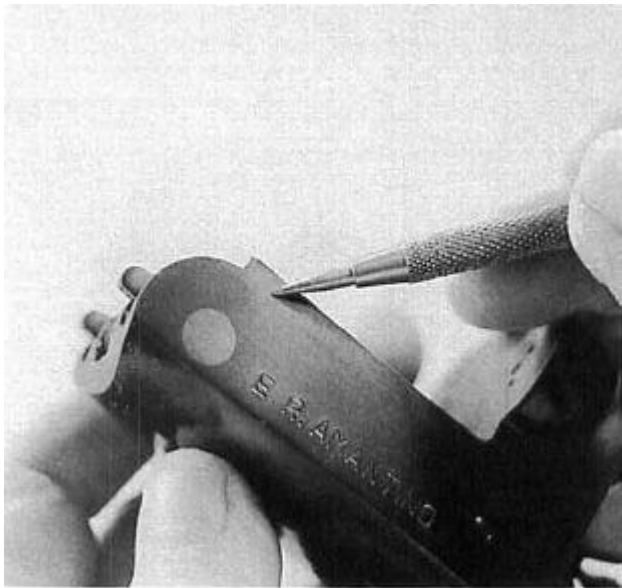
- 5.** The ejector is retained by a recessed screw between the barrel under lugs. After its removal, the ejector is taken out rearward.



6. Remove the two buttplate screws and take off the buttplate. Use a B-Square stock tool, as shown, or a long

screwdriver to back out the stock mounting bolt. Take off the buttstock toward the rear.

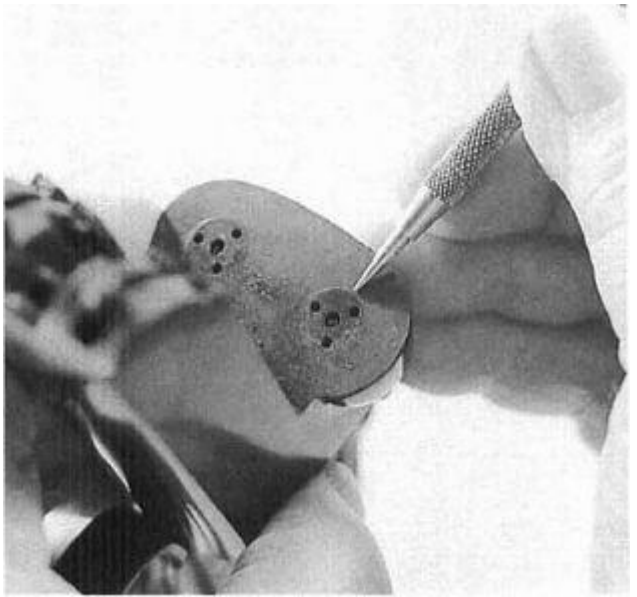




7. The cocking levers should be removed only for repair purposes. Each is retained by a short pivot cross pin, and the



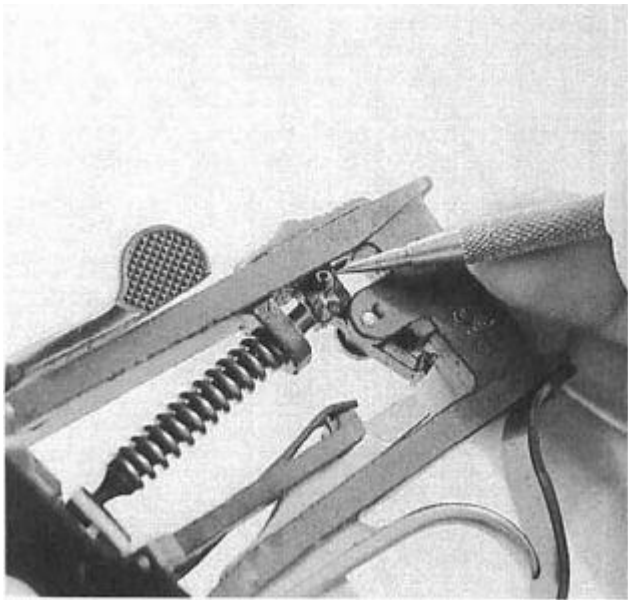
ends of the pins are finished-over. Removal will affect the external finish. If necessary, the pins are drifted out from inside, using an angled drift to start them.



**8.** If the firing pins need to be removed for repair, the hammers must be cocked, and a special three-point tool must

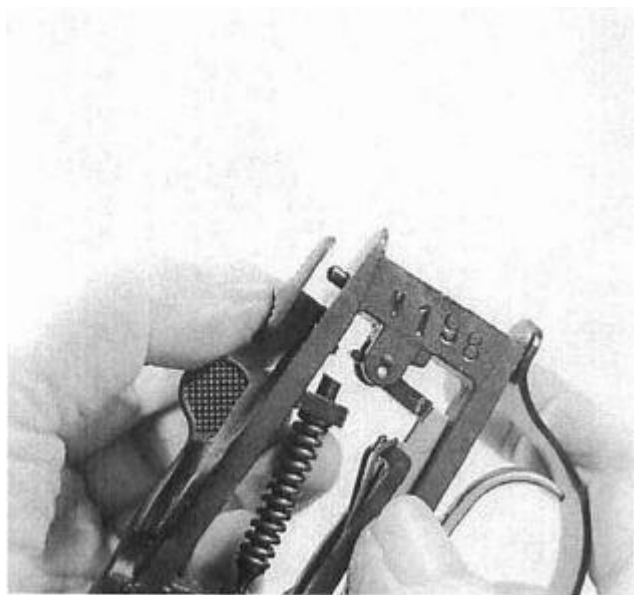
be used. The retainers are simply unscrewed, and the firing pins and their return springs are taken out toward the front. In normal takedown, they are best left in place.

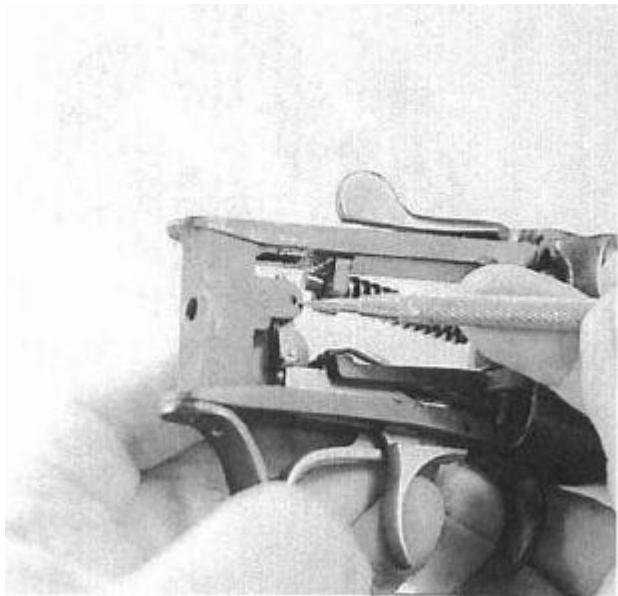
9. With the manual safety in off-safe position, pull the triggers and drop the hammers to fired position. Use a proper roll-pin punch to drift out the safety cross pin. Control the safety button as the punch is taken out, as it will be released.



**10.** Remove the safety button and its plunger and spring upward. It will probably be necessary to insert a tool to lift out the

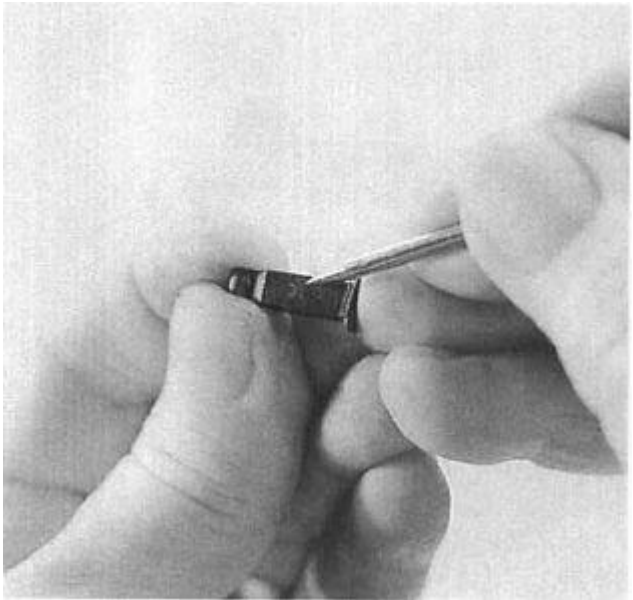
coil spring.





**11.** Drift out the cross pin that pivots and retains the safety lever, and take out the lever. As you do this, note its

orientation, as it must be replaced the same way.

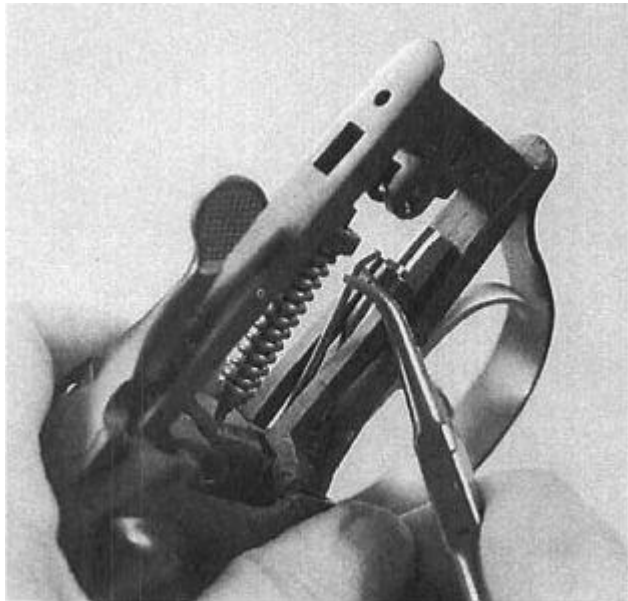


**12.** When the safety lever is

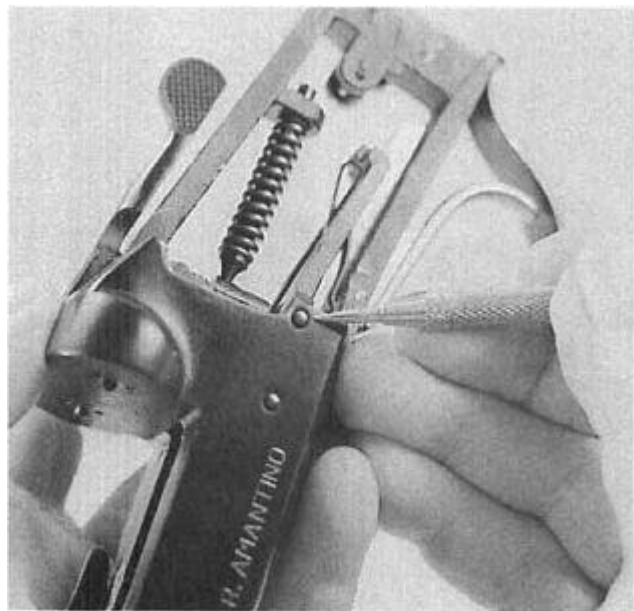
removed, it is a good idea to scribe a mark on its front surface. This will ensure that it is put back in the right orientation. This is important, as its lower end is fitted to properly engage the triggers.

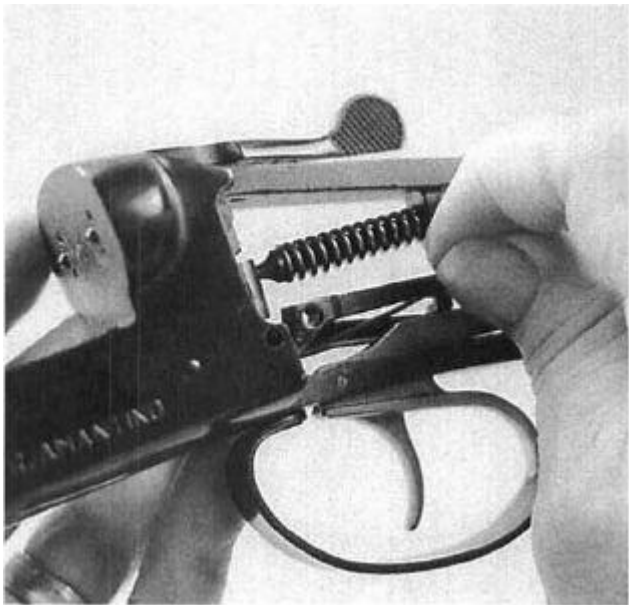
- 13.** To remove the sears, first unhook the spring of one sear, move it to center, and allow its rear arm to drop into the space between the sears and triggers.



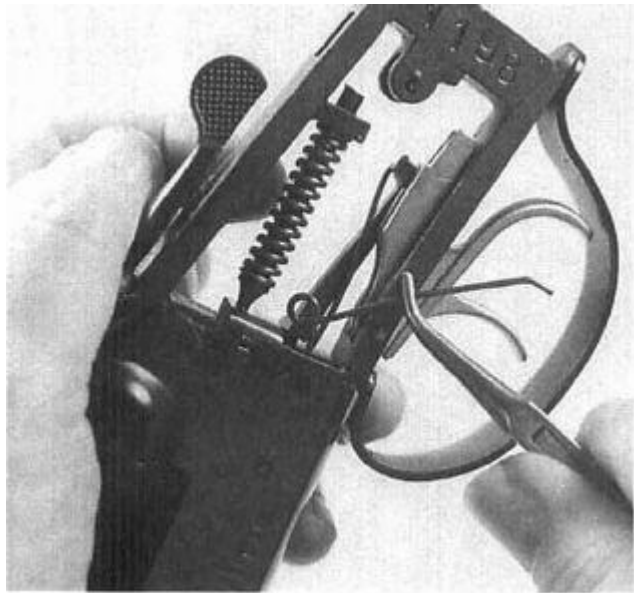


- 14.** Use a non-marring drift to move the cross pin just far enough to release the sear on one side.





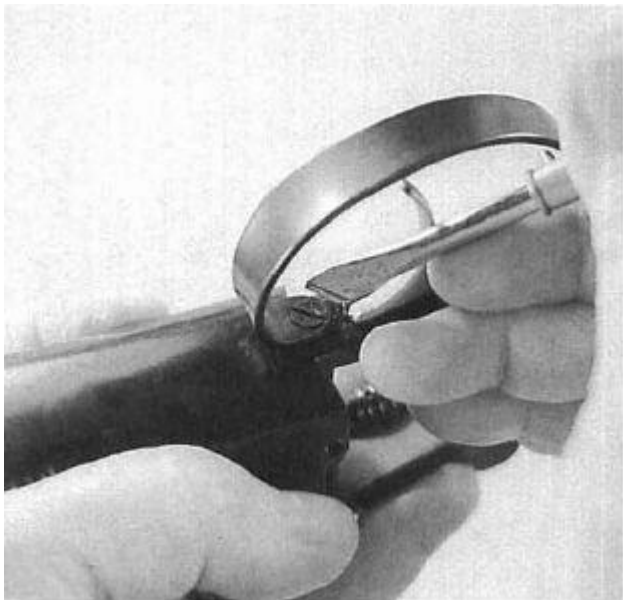
**15.** Remove the sear toward the rear



**16.** Drift the cross pin over a little more, and both sear springs can be removed. Note that the sear springs are not identical,

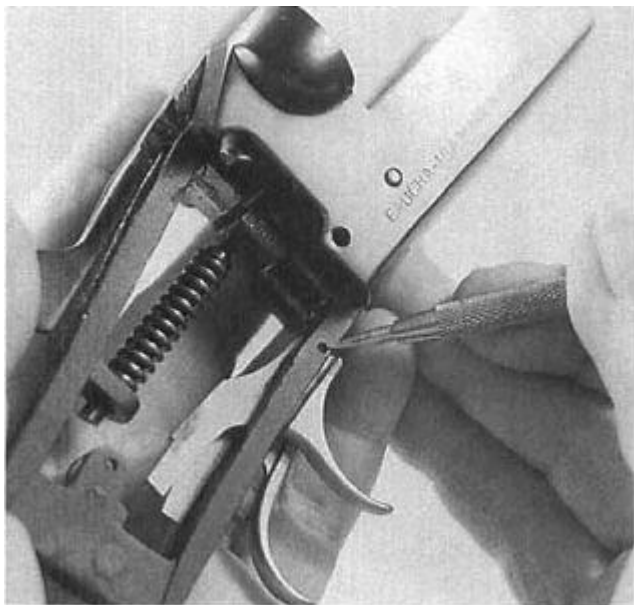
so keep them matched to the sears. The cross pin is drifted all the way out to free the other sear.

- 17.** Remove the screw at the rear of the trigger guard, and use an angle-tip screwdriver to take out the in-side front screw and release the guard for removal.



**18.** Drift out the cross pin that pivots and retains the triggers. Move the triggers forward and downward for removal. Note

that the front trigger is on the right, the rear trigger on the left (for reassembly).

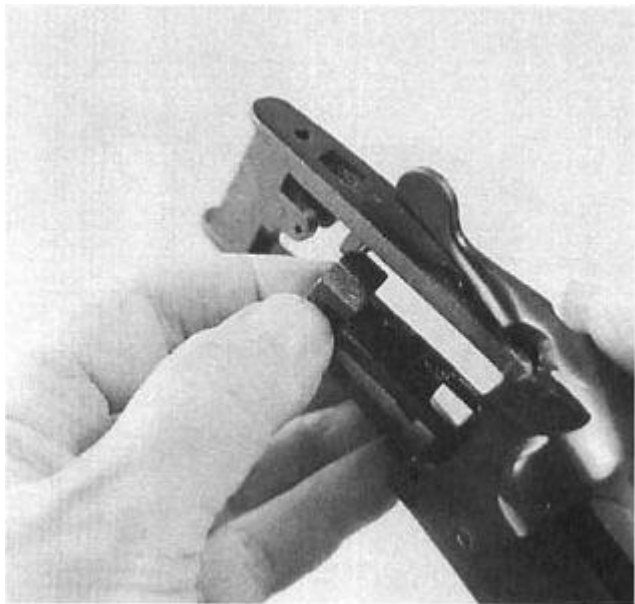




**19.** Grip the front of the locking block spring guide with pliers, and retract it slightly to move its tip out of the recess in the



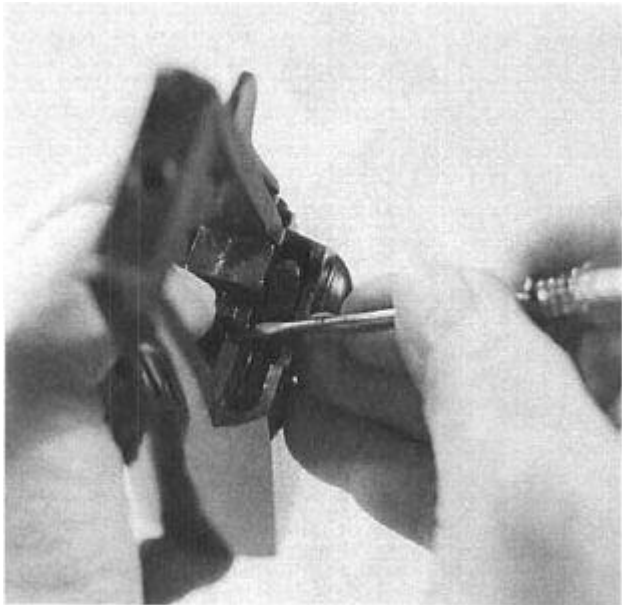
rear of the block. Caution: Don't let the pliers slip. The spring is strong and the guide can cause injury. A heavy shop cloth wrapped around would be a good idea.



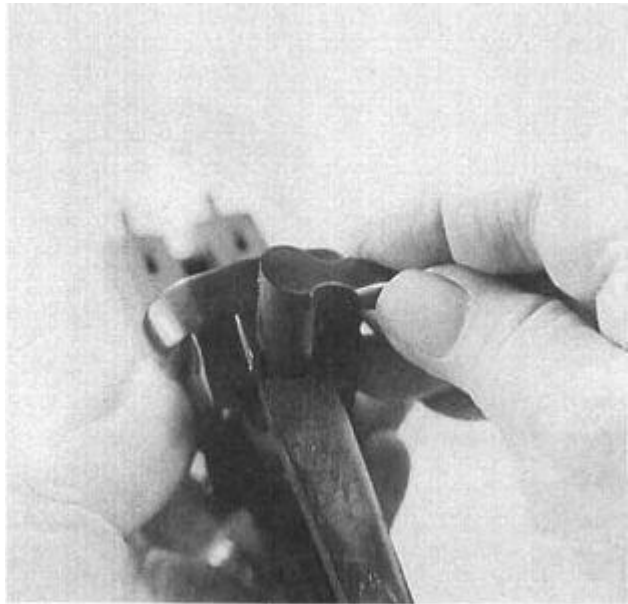
**20.** Turn the barrel latch lever to start the locking block bar rearward, then pull it out and angle it toward the right for

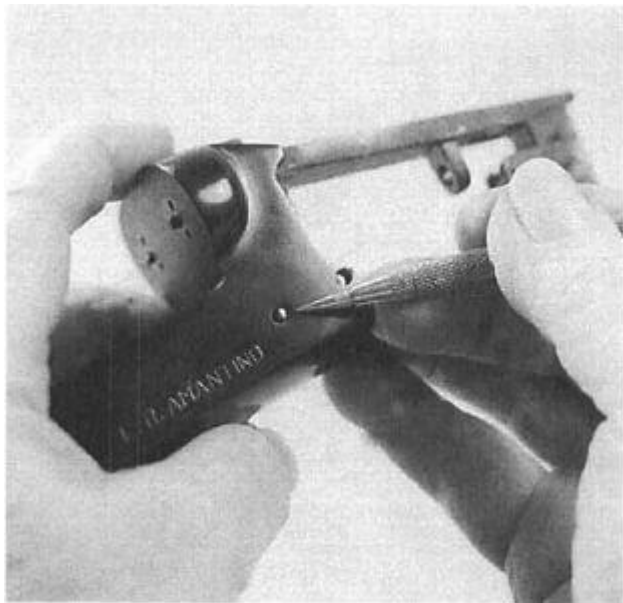
removal.

- 21.** Insert a small tool to depress the plunger of the barrel latch lever spring, and move the latch post upward until it clears the plunger. Caution: Control the plunger and spring and take them out toward the rear.



**22.** Turn the barrel latch lever toward the side, and remove it upward.



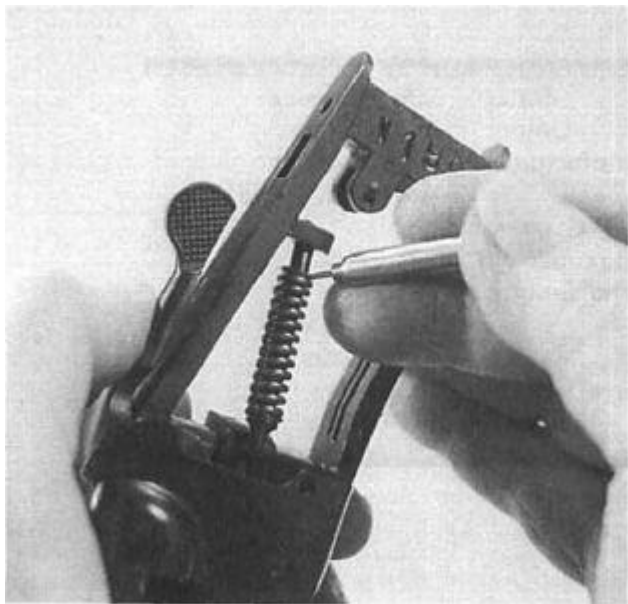


**23.** The hammers, their plungers and springs, and the cocking rods are removed only for repairs and all are taken out

toward the rear. This operation will require that the receiver is held in a padded vise, and a compressor tool must bear on the hammer to restrain it as the indicated pin is drifted across. In normal takedown, this system is left in place.

1. The locking block spring can be compressed in a vise, and a small drift inserted in the cross hole in its shaft to hold the spring and make reinstallation easier. This advantage would also be

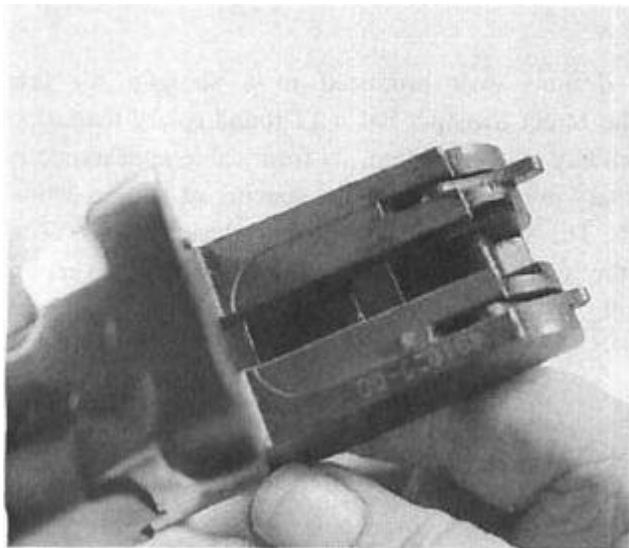
useful in removal, but there is no access cut in the spring base to allow it.





**2.** Remember to reinstall the safety lever with the scribed mark toward the front, to properly engage the triggers. Be sure the lug at its top fits into the fork on the safety button. The roll-pin is more easily inserted from left to right.





**3.** Before the forend is reinstalled, the hammers should be cocked. This can be done by putting the levers against the workbench or any piece of

wood and forcing them downward. The right lever is shown here in the cocked position, and the left one yet to be done.

When reinstalling the buttstock, avoid overtightening of the stock bolt. If you have a torque-wrench, don't exceed five pounds.

# Street Sweeper



**Data:** Street Sweeper

**Origin:** United States

**Manufacturer:** Street Sweeper  
Atlanta, Georgia

**Gauges:** 12

**Magazine  
capacity:** 12 rounds

**Overall  
length:** 37 inches  
(26 inches with  
stock folded)

**Barrel length:** 18 inches

**Weight:** 9-3/4 pounds

One of the best designs ever produced in a shotgun for law enforcement use, the Street Sweeper has a 12-round rotary magazine and a double-action-only trigger system. Its formidable appearance is an asset, and the rotary magazine allows the spacing of various lethal and non-lethal loads. The Street Sweeper was introduced in 1989. The gun shown here is the "civilian" version. There is also a police version with a 12-inch barrel.

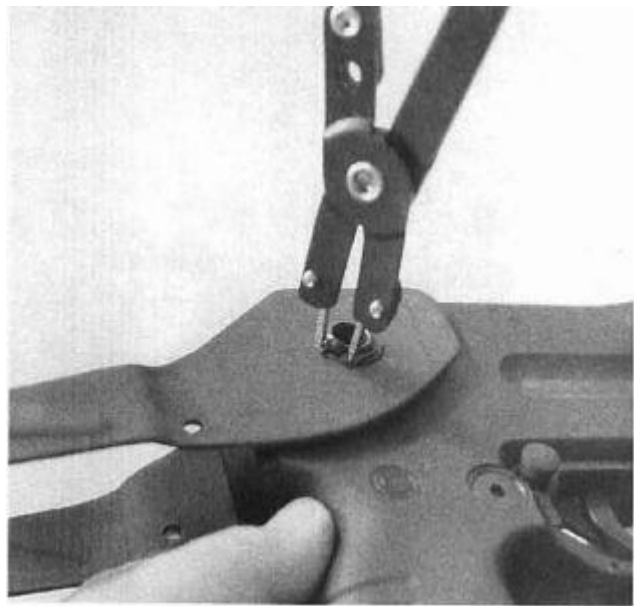


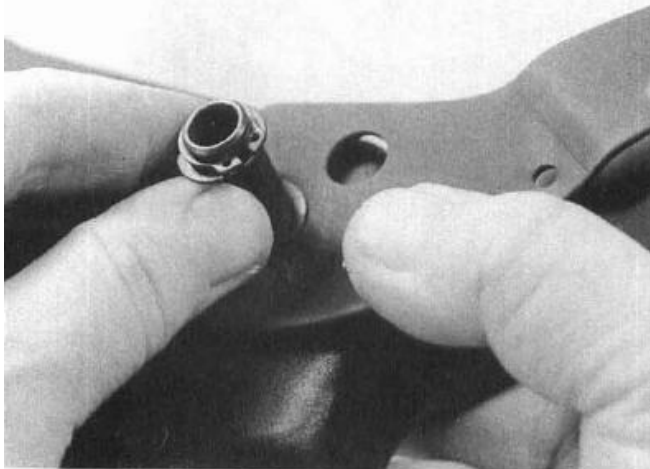
# Disassembly:

1. Use pliers to compress the ends of the sling loop arms on the right side until they will enter the tunnel, and remove the sling loop toward the left.



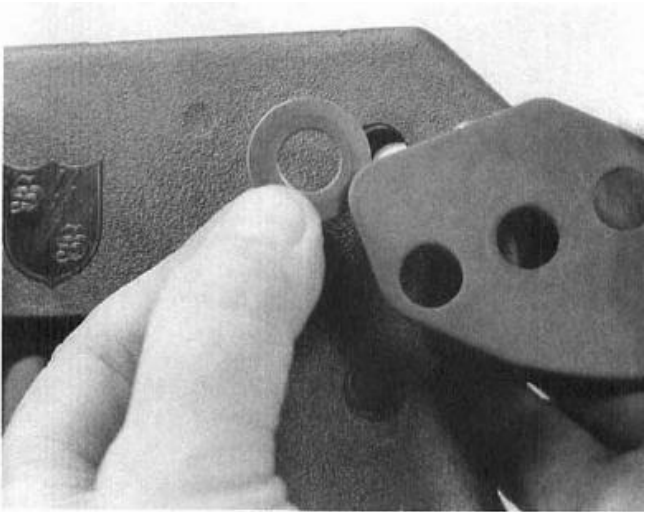
- 2.** Use snap-ring pliers to remove the ring from the right end of the stock pivot. Remove the snap-ring end washer.





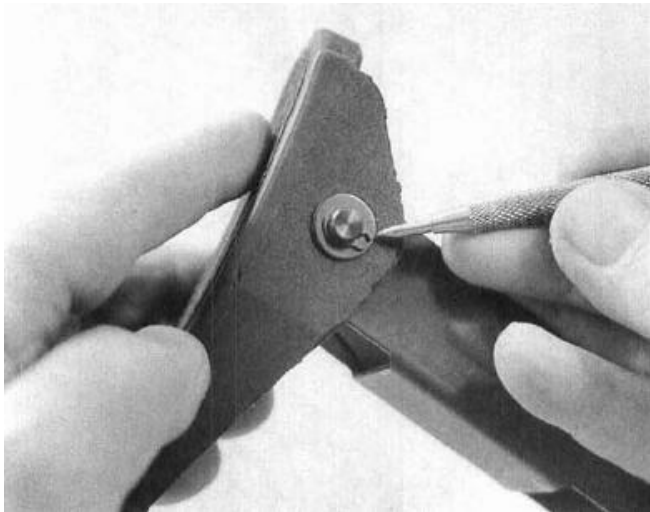
3. With the stock assembly in mid-position, push out the stock pivot toward the left. It is not necessary to remove the left snap ring and washer. Two larger washers, inside the

arms of the stock assembly,  
will be released.

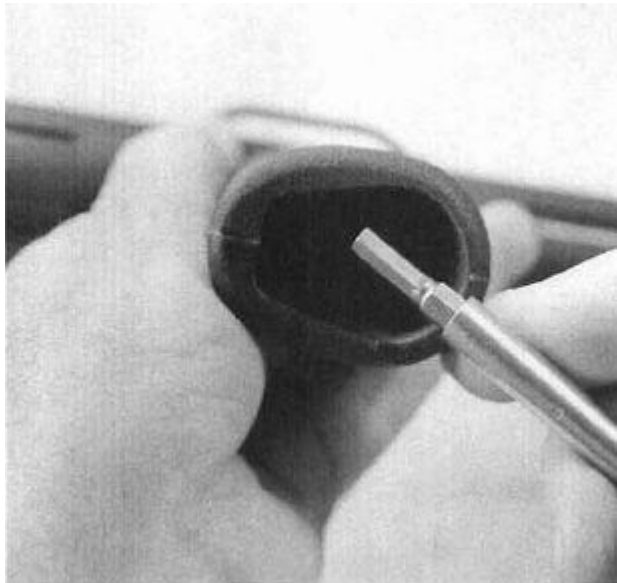


4. Remove the stock assembly toward the rear, along with the washers.

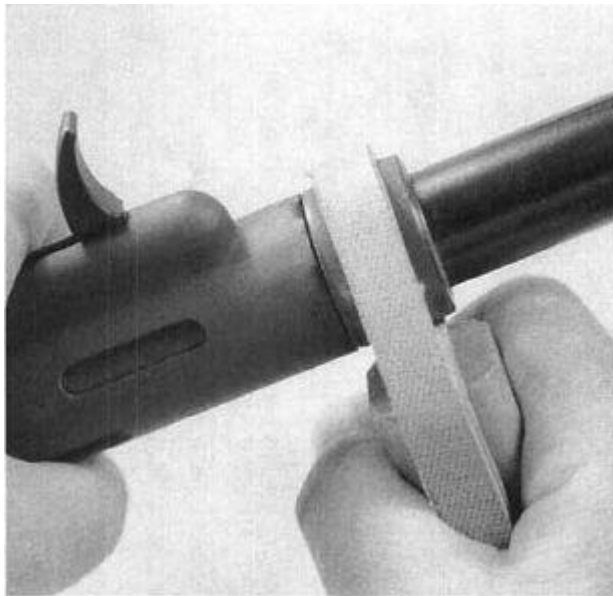
5. It is possible to remove the buttplate from the stock by taking off the small snap-ring. If this is done, control the torsion spring. In normal takedown, this assembly is best left in place.



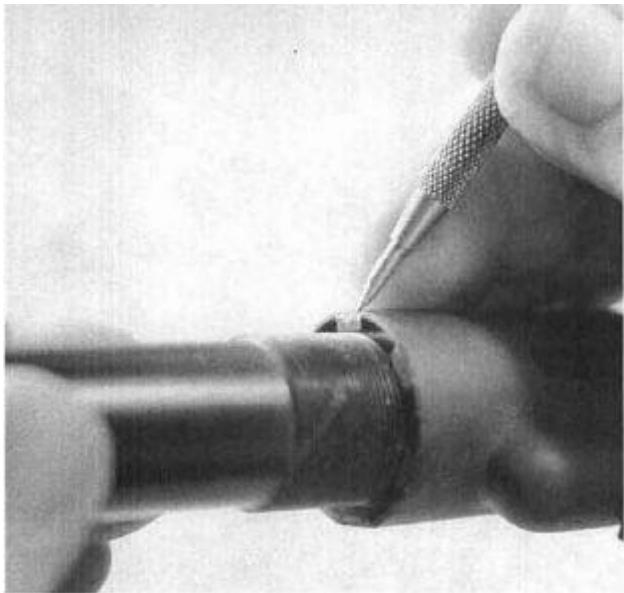
- 6.** The fore-grip is retained by a large Allen screw and washer.







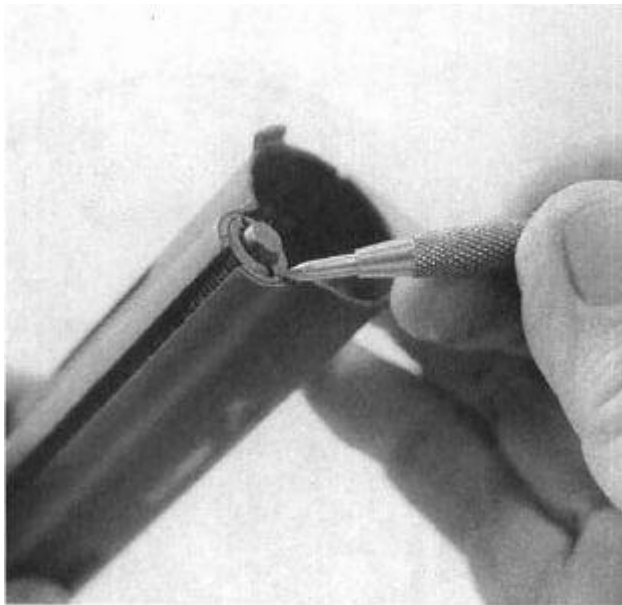
7. Use a non-marring strap wrench to unscrew the barrel jacket nut, as shown. Remove the nut.



- 8.** Nudge the jacket forward, using a non-marring tool against the fore-grip stud. Do not use the ejector handle for this

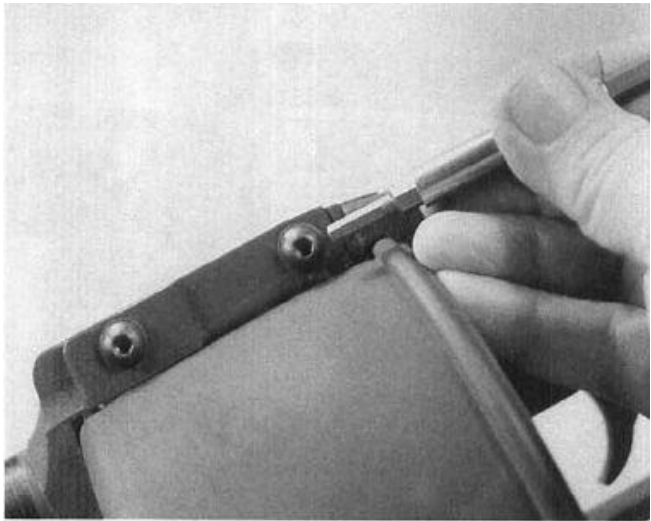
purpose. When the inner flanges of the jacket reach the barrel threads, turn the jacket counter-clockwise for removal.

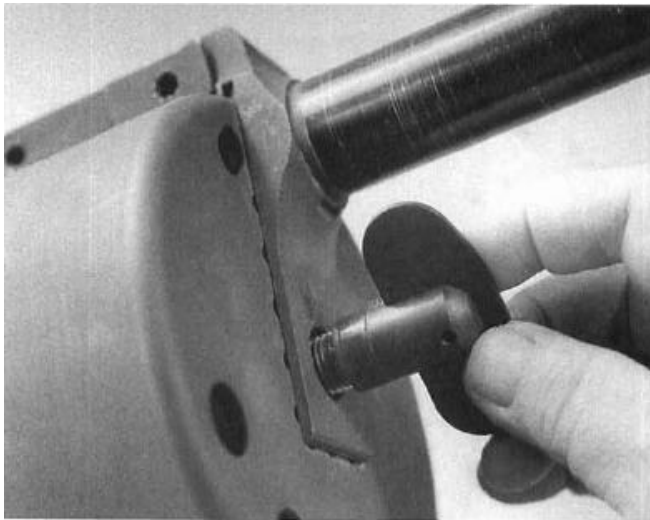
9. A twin-point wrench is used to remove the nut at the rear of the ejector housing, and the ejector and its spring are taken out rearward. Control the spring as the nut is removed.



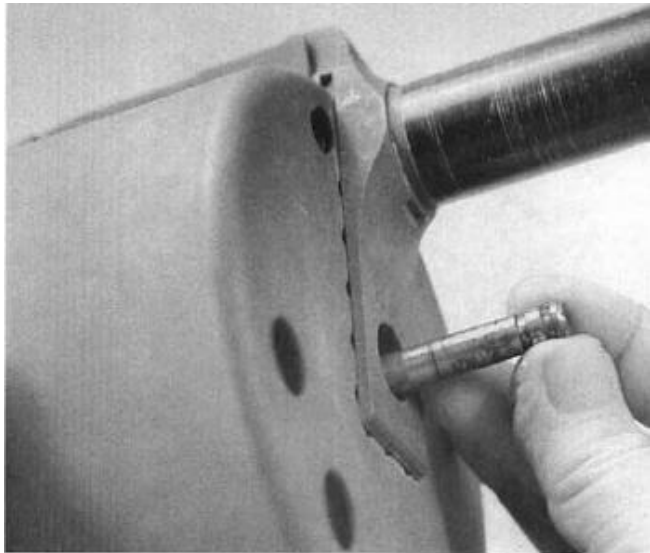
**10.** Put the safety in the on-safe position, and pull the trigger several times until the magazine stops rotation,

easing the tension of the drive spring. Remove the four Allen screws, two on each side, above the magazine.





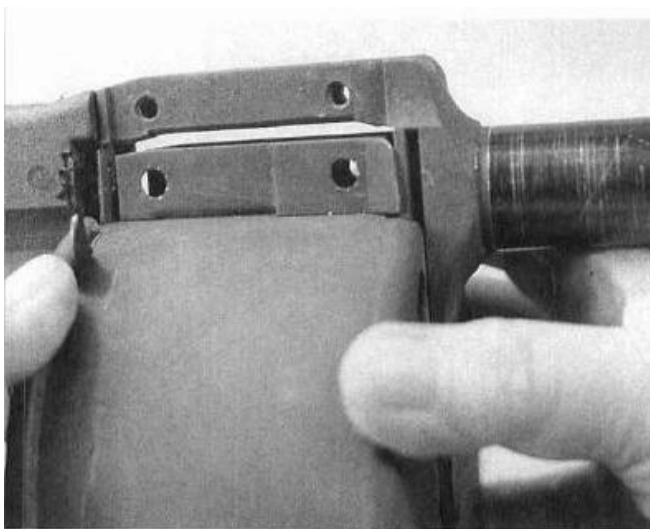
- 11.** Turn the winding key counter-clockwise (front view) to unscrew and remove it.



**12.** Pull out the magazine pivot shaft toward the front.

**13.** Remove the magazine

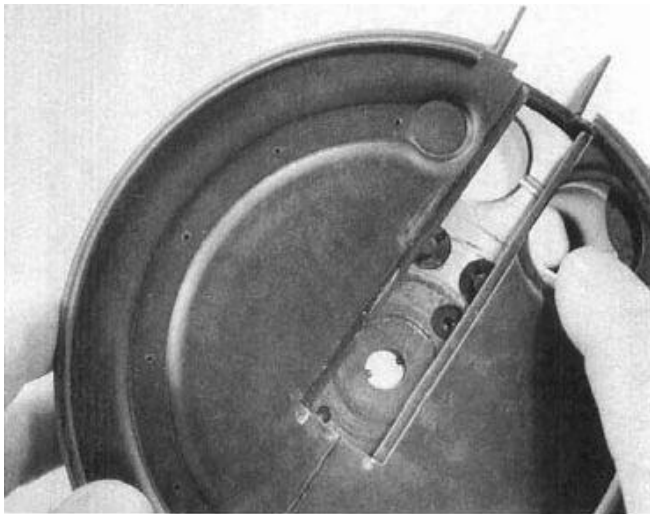
assembly downward.

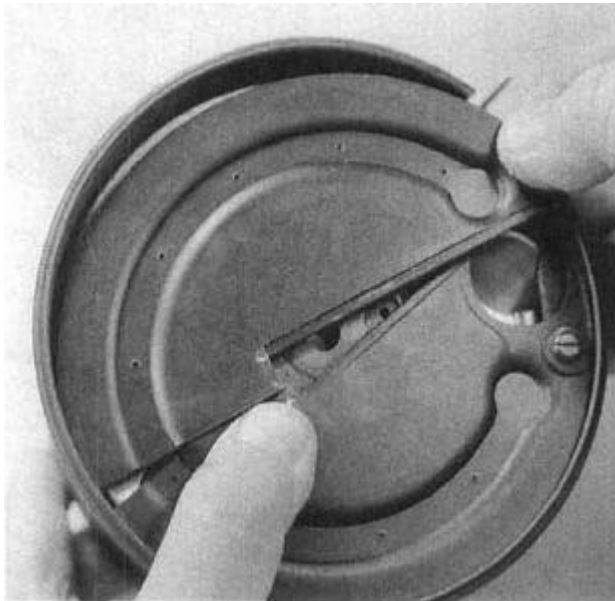


- 14.** Open the loading gate, and turn the rear plates of the magazine housing to the position shown, until the top inner edge of the



right plate aligns with the edge  
of the opening at the top.





- 15.** Move the left plate to the position shown, depress the right plate very slightly at its lower step, and remove the

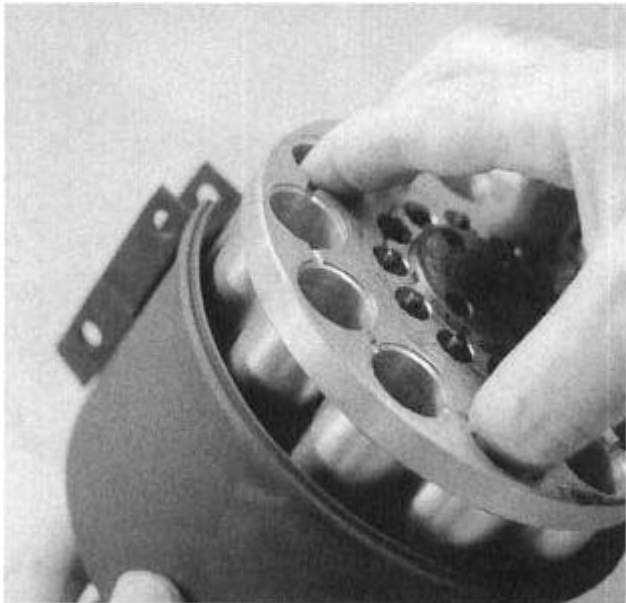
left plate from the housing.



**16.** Move the right plate inward,  
and position the loading gate

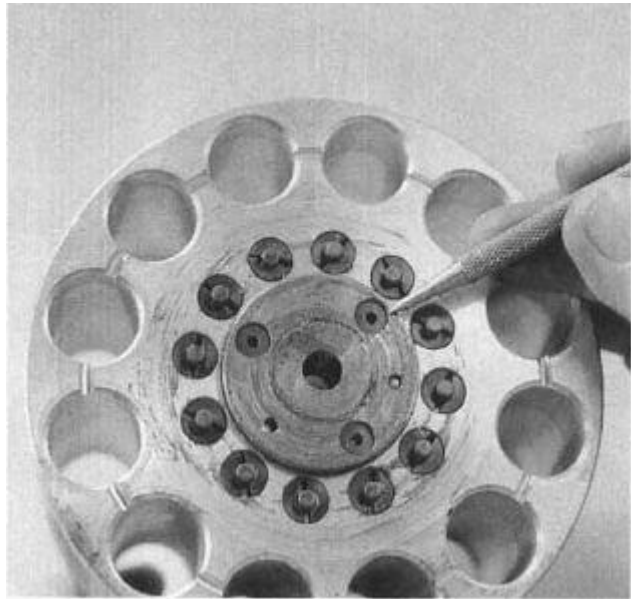
to align with the exit recess in the housing. Remove the right plate. After the plate is out, the gate can be removed by using a twin-point wrench and screwdriver, but in normal takedown it is best left in place.

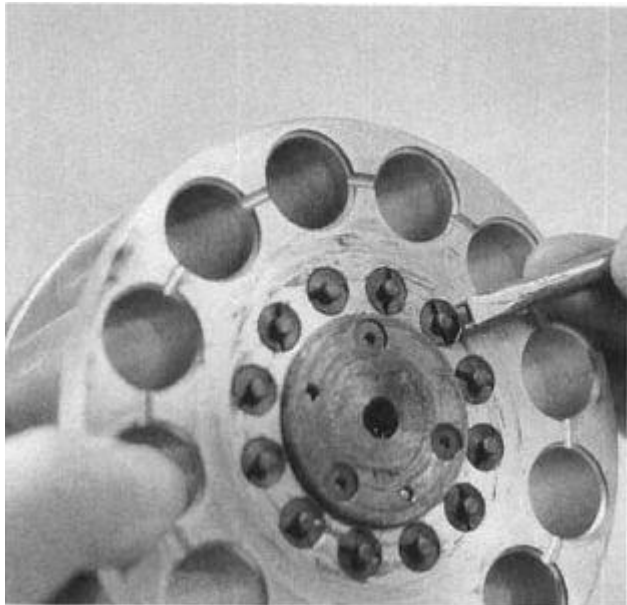
- 17.** Lift the magazine out of its housing.



**18.** The rotation spring mechanism is retained in the I magazine by plates at the front and rear, secured by three Allen screws

in each plate. This system should not be disassembled in normal takedown. If repair is necessary, it should be done by a gunsmith who is familiar with the mechanism, or it should be returned to the factory.

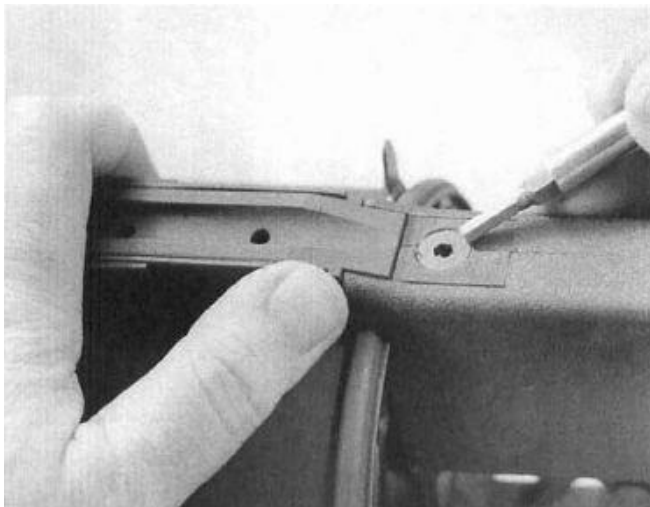




**19.** The position stop plungers and springs are retained by screw-housings that are removable by using a twin-point wrench.

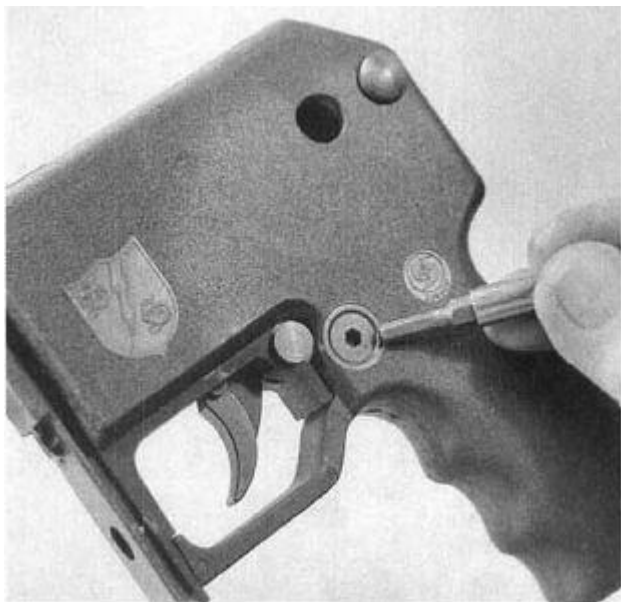


In normal takedown, these are best left in place.

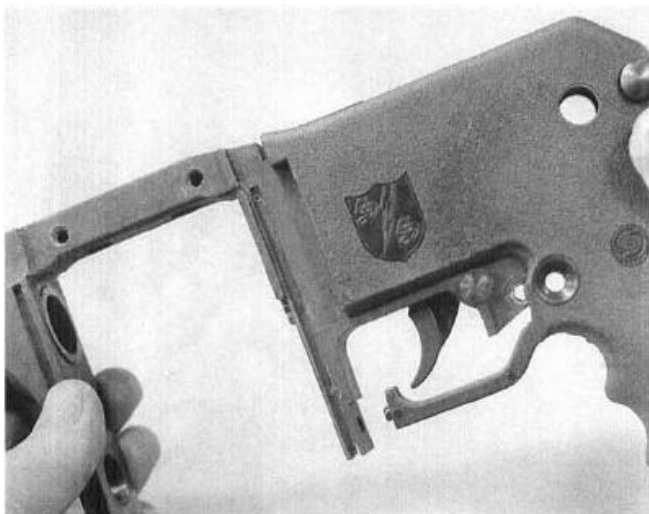


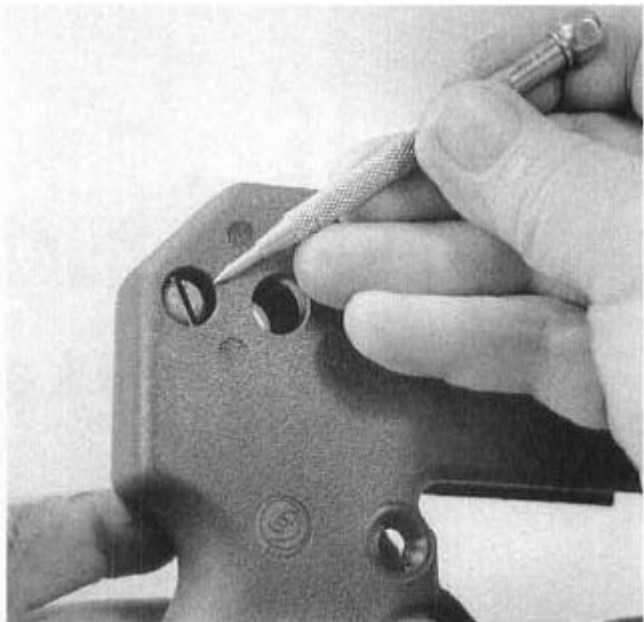
**20.** Remove the Allen screw on top of the grip frame unit.

**21.** Remove the two Allen screws, one on each side, just to the rear of the safety.



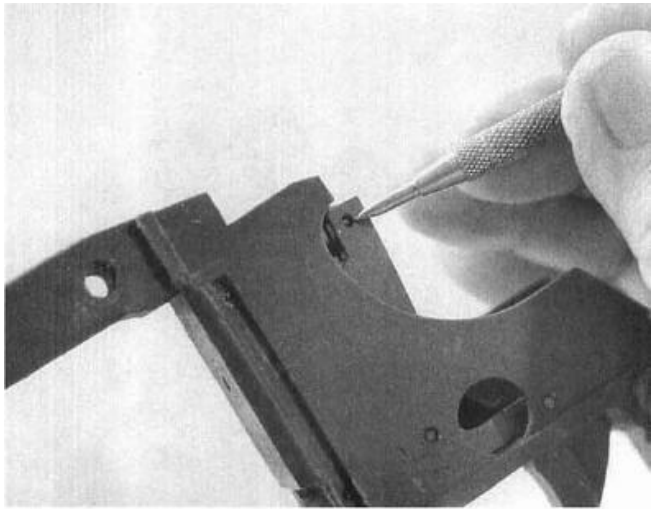
**22.** Remove the pistol grip unit toward the rear. Keep the trigger pulled as this is done, or flex the guard to clear it.





**23.** If it is necessary for repair, the stock latch button can be removed by holding it with

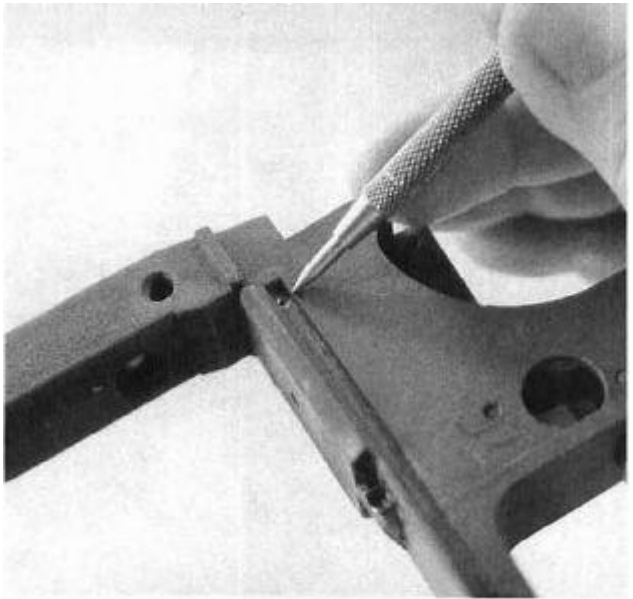
non-marring pliers on the left side, and taking out the screw. The button and spring are then removed toward the left.



**24.** The firing system of the gun is

very simple, but it uses heavy expansion-type springs. If it is not necessary for repair, it is best to avoid disassembly of this system. For access to the firing pin, the hammer spring can be disconnected from the hammer by drifting out this roll-type cross pin. Be sure the hammer is solidly supported.

- 25.** Drifting out this roll-type cross pin will detach the hammer spring unit from the frame.

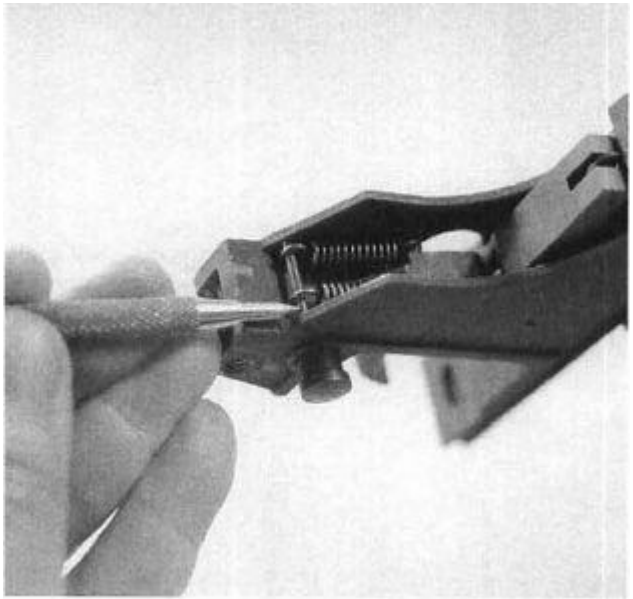


**26.** If the hammer spring has been disconnected, drifting out the hammer pivot pin toward the left will allow the hammer to

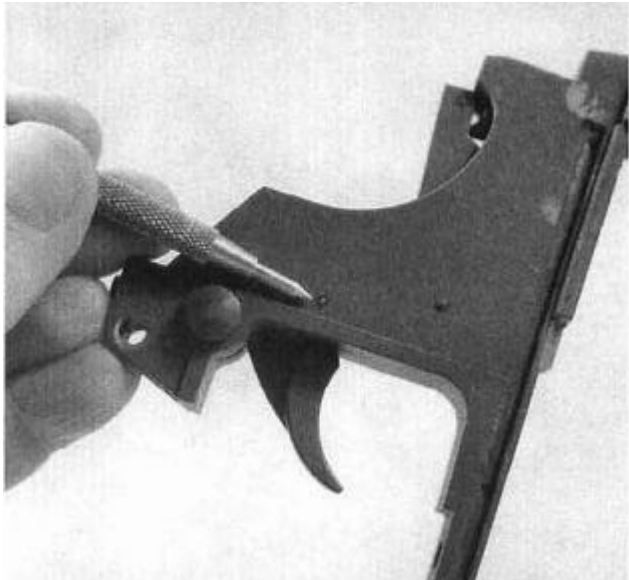
be taken out upward and toward the rear. The double-action lever and its coil spring are retained in the hammer by a cross pin.







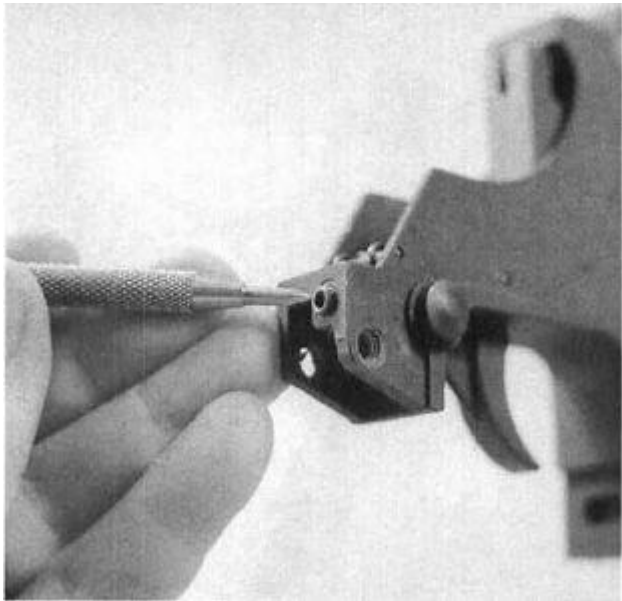
**27.** The twin trigger springs are retained by a cross pin at the rear of the frame.



**28.** If the trigger springs have been disconnected, and the hammer assembly removed, drifting out the trigger cross pin

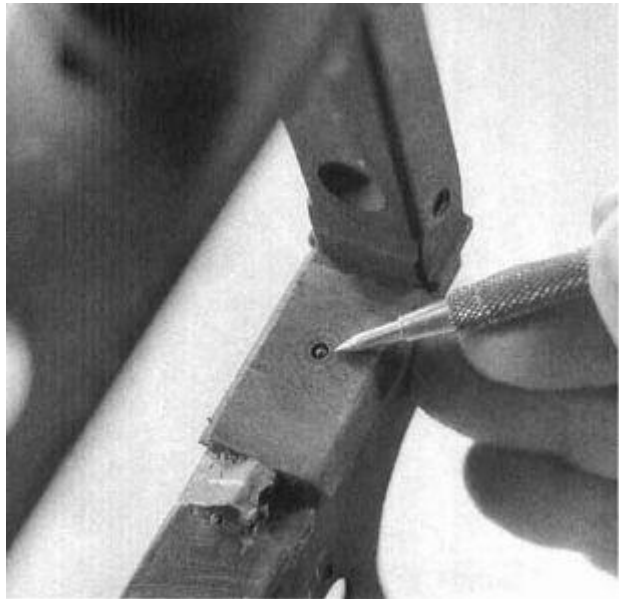
toward the left will allow the trigger and the attached thruster assembly to be removed.

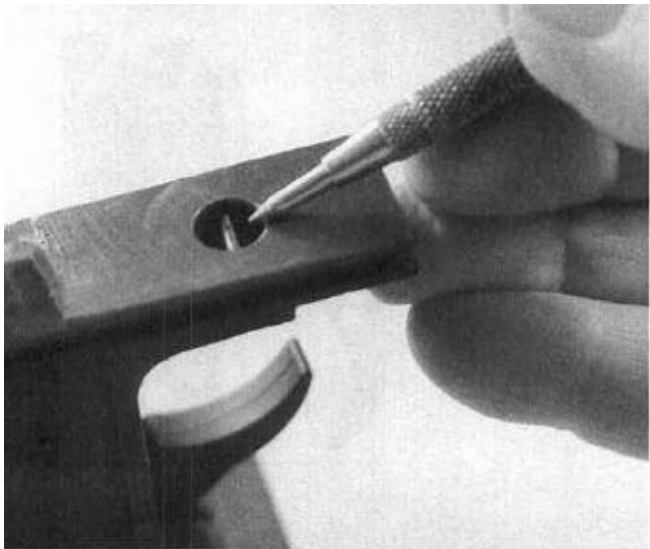
- 29.** An Allen screw at the rear retains the safety spring and ball. Control the spring as the screw is taken out. The safety button can then be removed toward either side.



**30.** The firing pin is retained by a nut on the inside, accessible after the hammer is removed (or its spring disconnected),

and the nut requires a twin-point wrench for removal. The firing pin and its return spring are then taken out toward the rear.



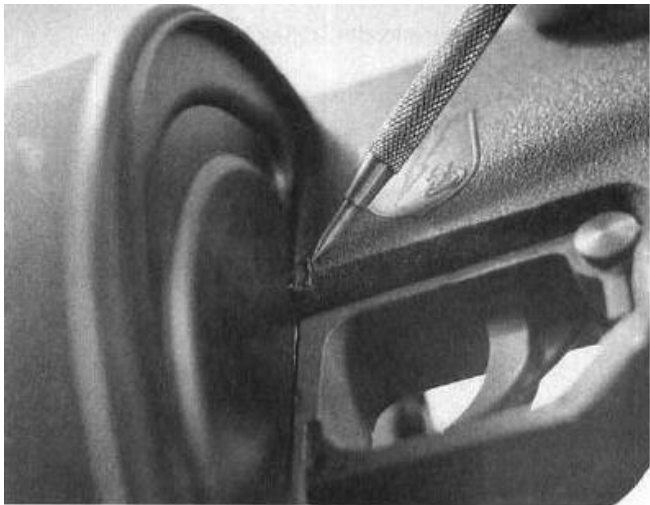


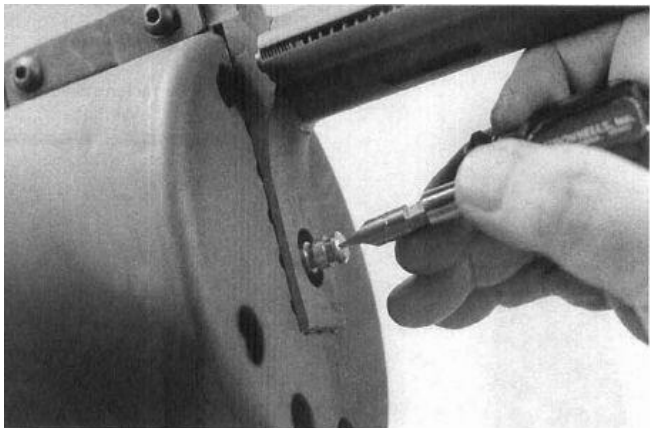
**31.** This is the index pin for the magazine pivot shaft. It retains no part, and it is not removed in normal takedown.



# Reassembly Tips:

1. As the magazine assembly is moved upward into place, the rear flanges may be very tight at the edge of the pistol grip unit. To make this easier, file a slight bevel at that point, as shown. Use hand pressure only in pushing the housing back into place.





2. When installing the magazine pivot shaft, first engage its grooves at the rear with the lugs inside the tunnel. Then, use the indexing cut in its forward tip as a screw slot to turn it until the slot is

horizontal, engaging the split rear tip with the index pin in the frame. The pivot shaft should then move easily into place, to the depth shown.

**Tri-Star Model**

**411R Coach**



## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Tri-Star Model 41 1 R Coach also apply to the following guns:

**Model 411**

**411D**

**411F**

**Data:**

Tri-star Model  
411R Coach

**Origin:**

Italy

**Manufacturer:**

Rota, Italy, for  
Tri-Star

**Gauges:**

.410, 20, 16, 12  
(in basic Model  
411)

**Overall**

36-3/4 inches

<b>length:</b>	(Model 411R)
<b>Barrel length:</b>	20 inches (Model 411R)
<b>Weight:</b>	6 to 6-3/4 pounds

Offered in 12 or 20 gauge only, the Model 41 1R Coach was introduced in 1999. With its color-case-hardened receiver and gold triggers, it is an elegant little gun. The short barrels make it an excellent choice for home protection or western-style competition.



The other versions of the Model 41-1 are mechanically the same.

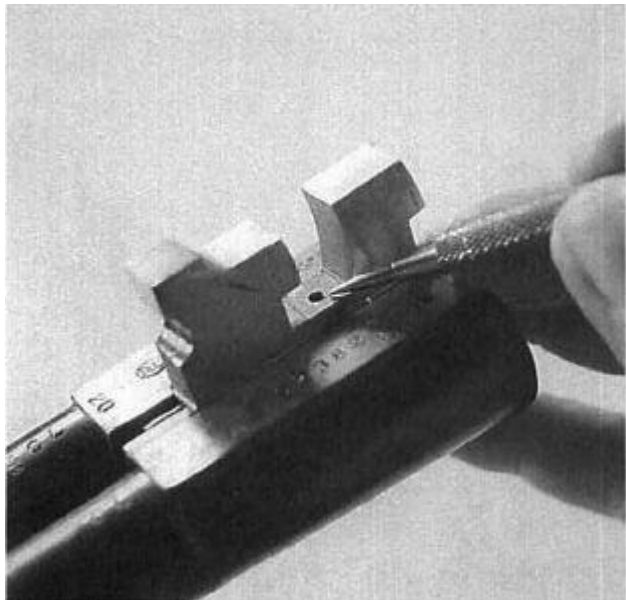
# Disassembly:

1. Depress the plunger at the front of the forend, and tip the forend away from the barrel unit for removal.



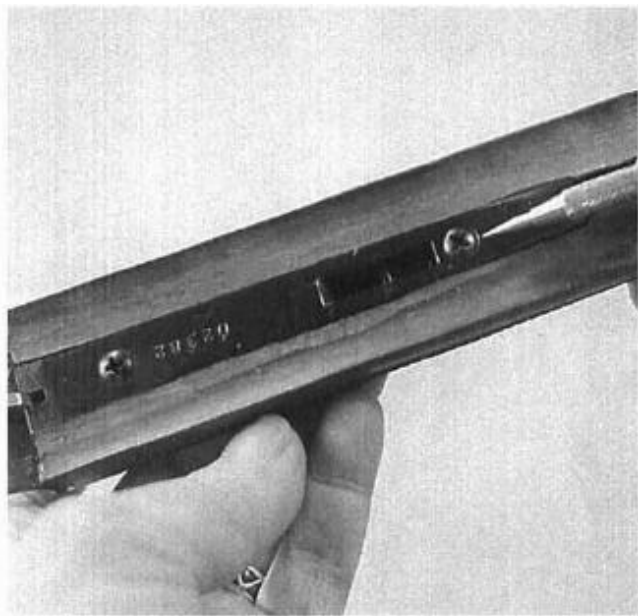
- 2.** Operate the barrel latch, tip the barrel unit open, and take it off upward.





3. The ejector is retained in the barrel unit by a small recessed screw, located between the under-lug projections. Back it

out or remove it, and the ejector can be taken out toward the rear.



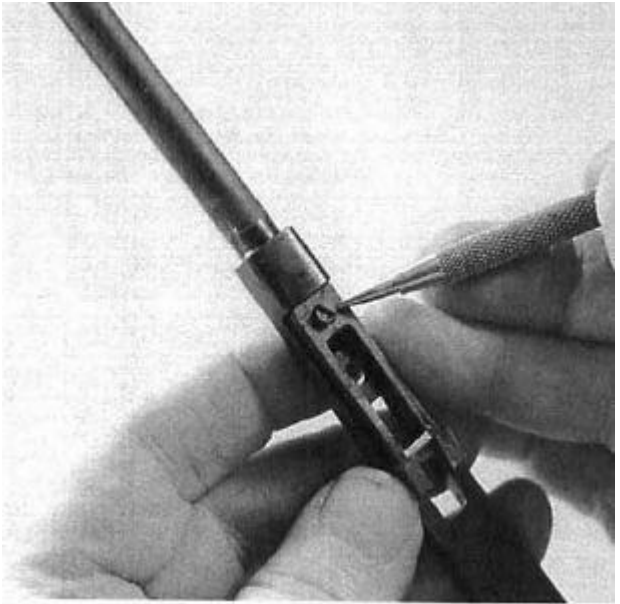
- 4.** Remove the two Phillips screws on the inside of the forend. Note for reassembly that they are not identical.
  
- 5.** Lift the front of the forend insert, and carefully remove it from the wood piece.

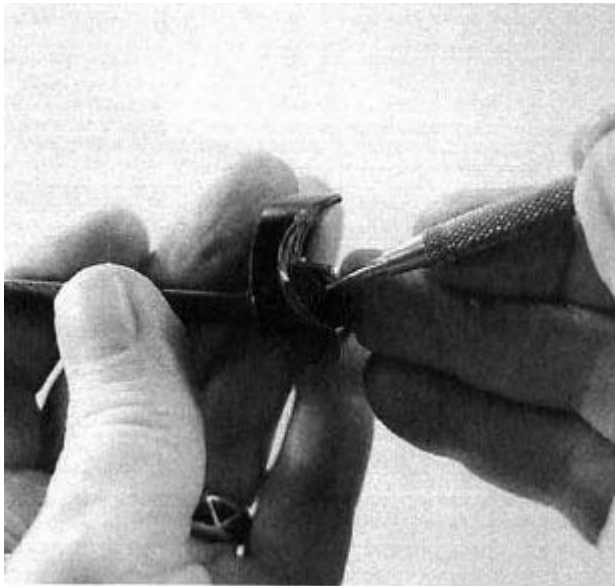


6. The latch bracket is retained on the plunger by a screw. Removal of the screw and bracket will release the

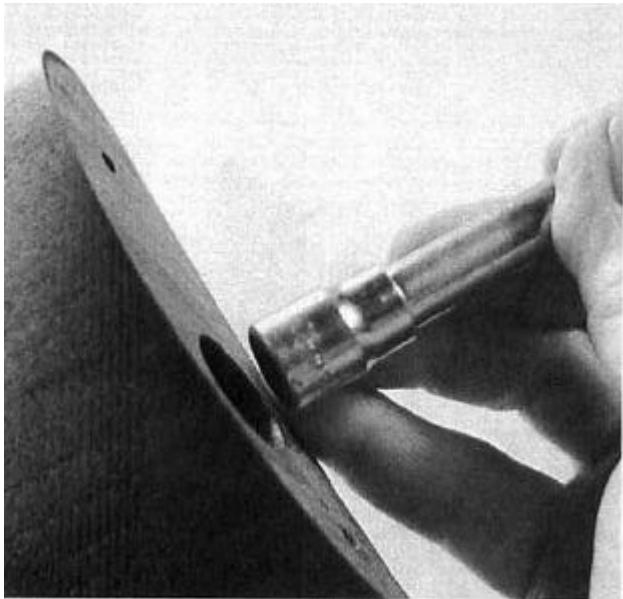


plunger and coil spring toward  
the front.





7. The ejector cam lever is pivoted and retained by a cross screw at the rear of the forend insert.



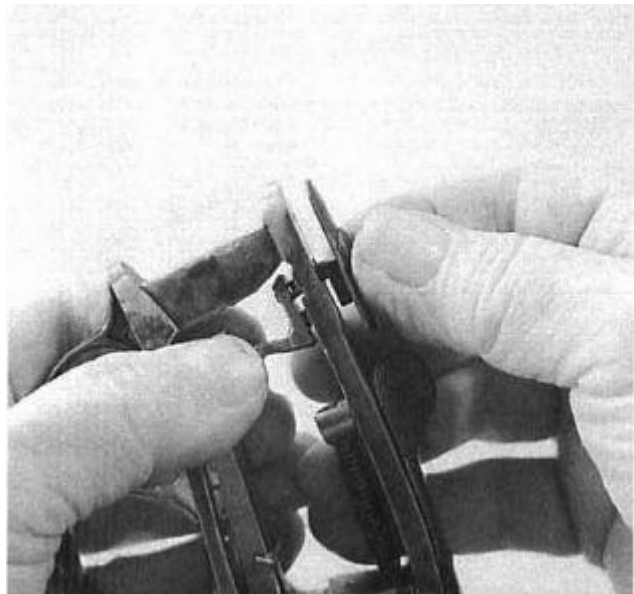
**8.** Remove the two Phillips screws and take off the butt plate. Use a 10mm socket to back out the stock mounting bolt, and

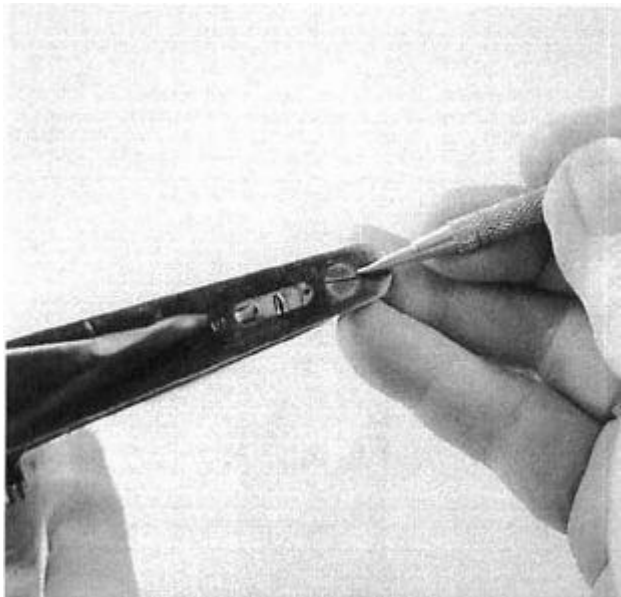
remove the butt stock from the receiver.

9. The manual safety assembly is retained by a small cotter key that passes through a hole in the safety button shaft. Bend the ends of the key back to straight and take it out. Caution: The safety spring will be released for removal, so control it.



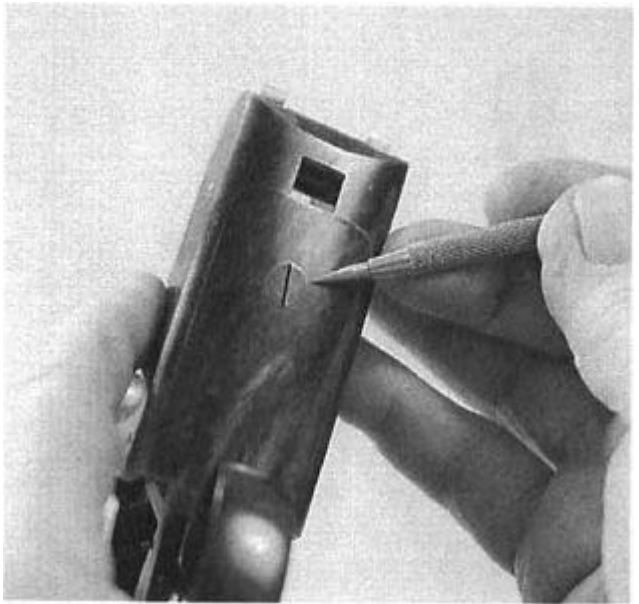
**10.** Take out the safety button upward, and the safety block downward.





**11.** If the internal hammers are cocked, pull the triggers to drop them to fired position. Remove the screw at the upper

rear of the receiver tang. Use a properly fitted screwdriver, as any deformation of the slot will impede the safety button.



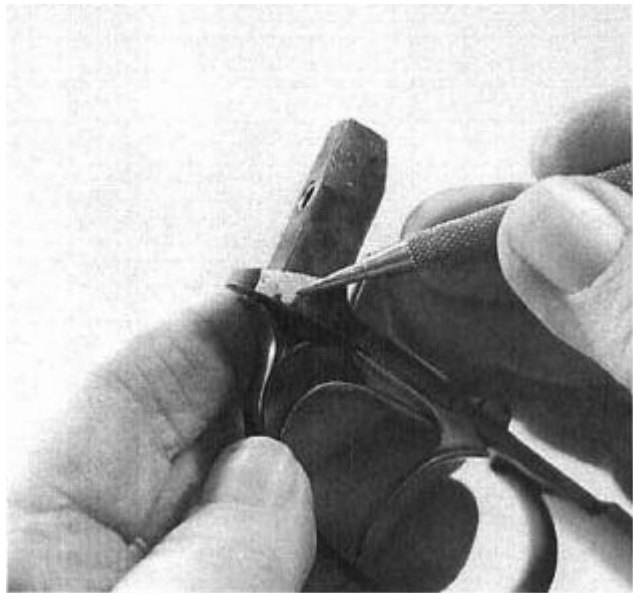


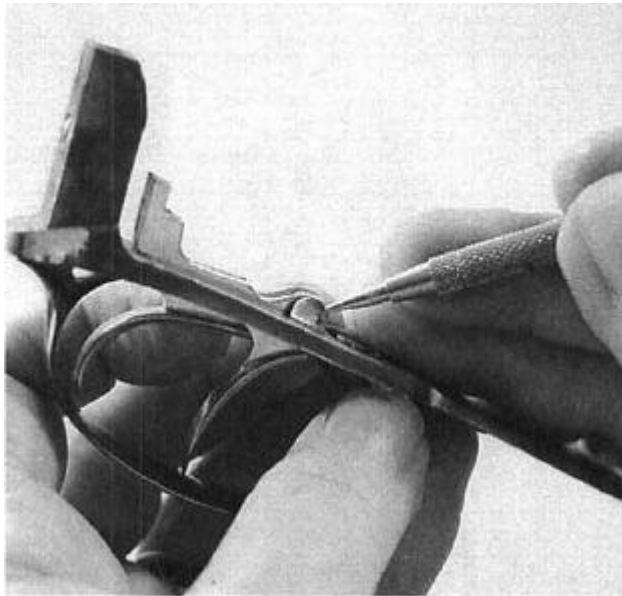
- 12.** Use a properly fitted screwdriver to remove the screw on the underside of the receiver.
  
- 13.** Gently pry the post of the trigger plate at upper rear, and tip the plate downward for removal.



**14.** The trigger guard is cross-pinned at the rear, and the pin is finished-over. It should be removed only if the triggers

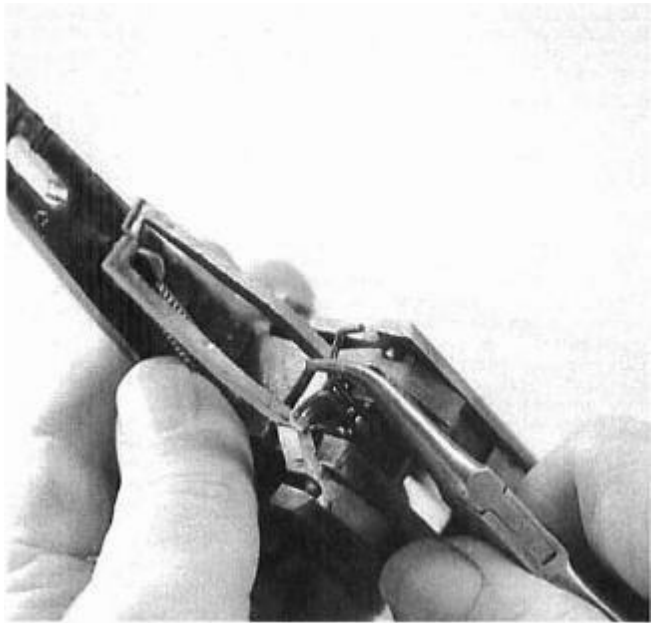
are to be taken out for repair. After the pin is drifted out, the guard is turned 90 degrees, to align its front-post lugs with the exit cuts, and is taken off downward.





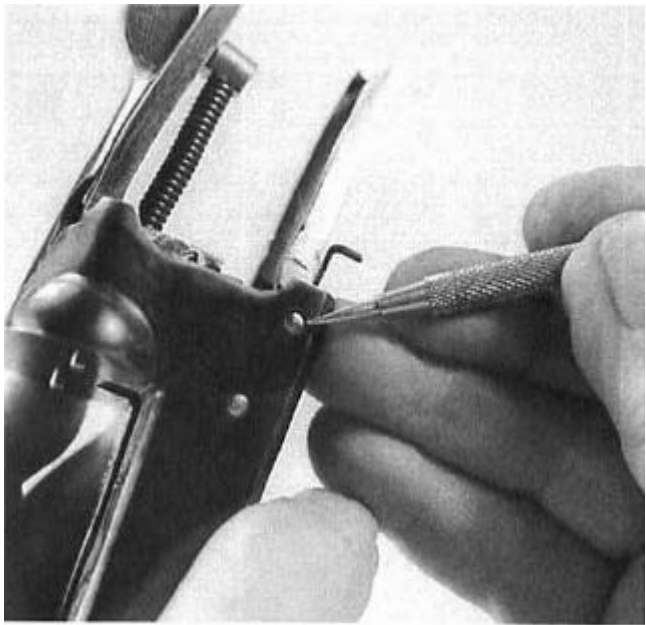
**15.** If trigger removal is necessary, they must be taken out downward, so the guard will have to be taken off first. The

trigger cross pin is also staked and finished-over. Remove it only for repair.



**16.** Unhook the sear springs from both sears. This is best done with the receiver gripped in a padded vise. Use a notched tool to depress the opposite spring while the other spring arm is swung below it to unhook.

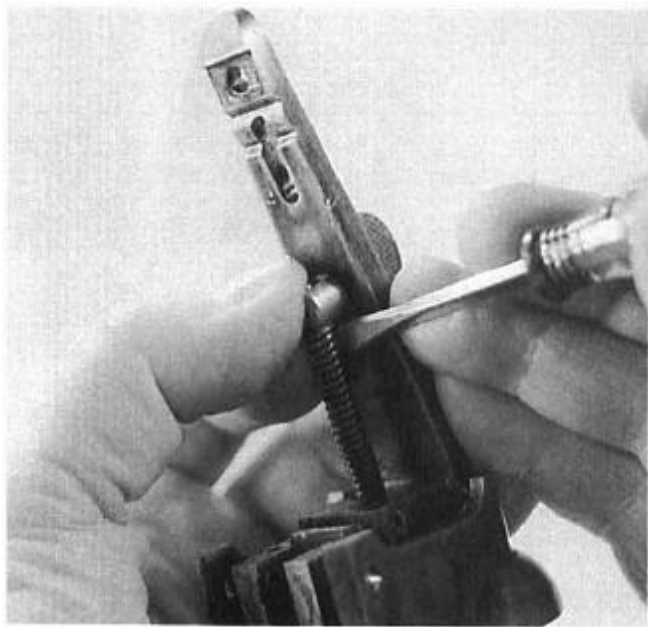
**17.** Use a non-marring drift to move the cross pin as you take out the sears and the separate sear springs. Note the relationship for reassembly.

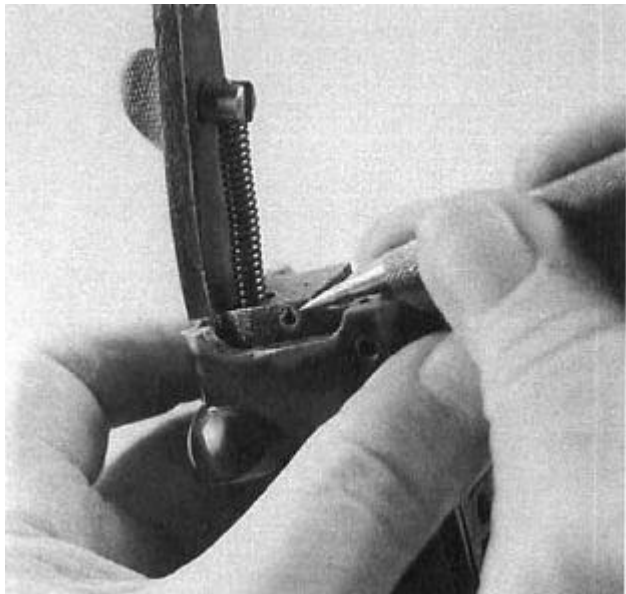


**18.** If removal of the barrel latch assembly is necessary for repair, begin by gently prying



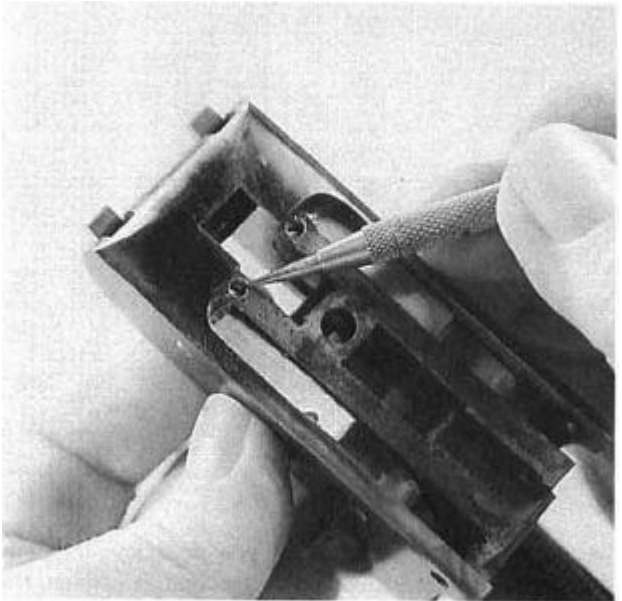
the latch spring and guide out of its base on the upper tang. Caution: This strong spring is partially compressed, so cover it with a heavy shop cloth to control it.



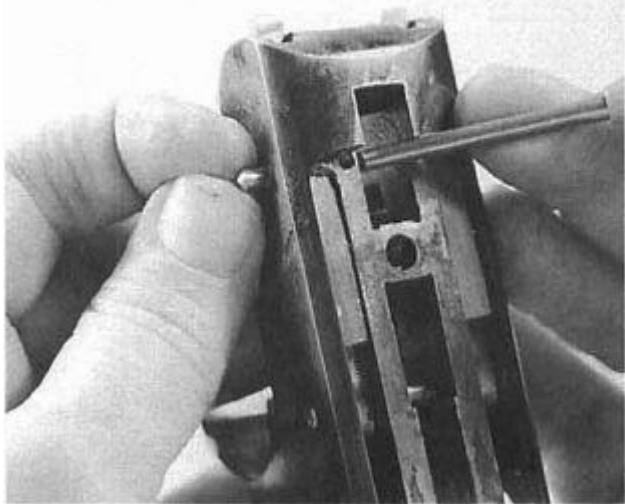


**19.** The barrel latch lever is retained by a roll-type cross pin that is finished over. Remove it only for repair. The

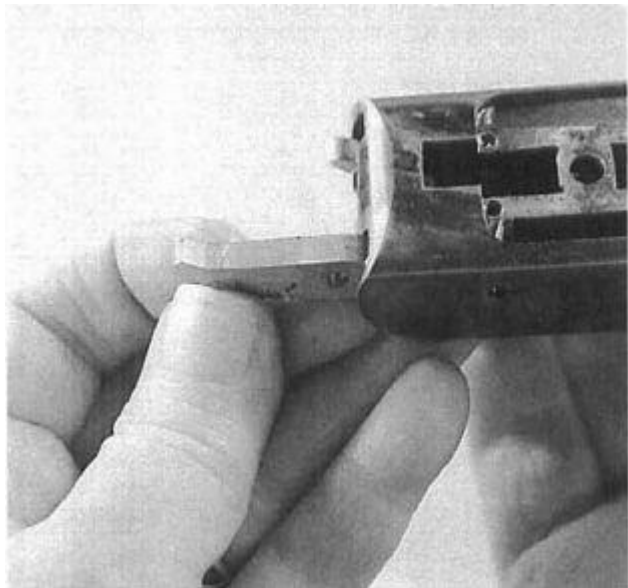
latch lever is taken out upward, and the latch bar toward the rear.

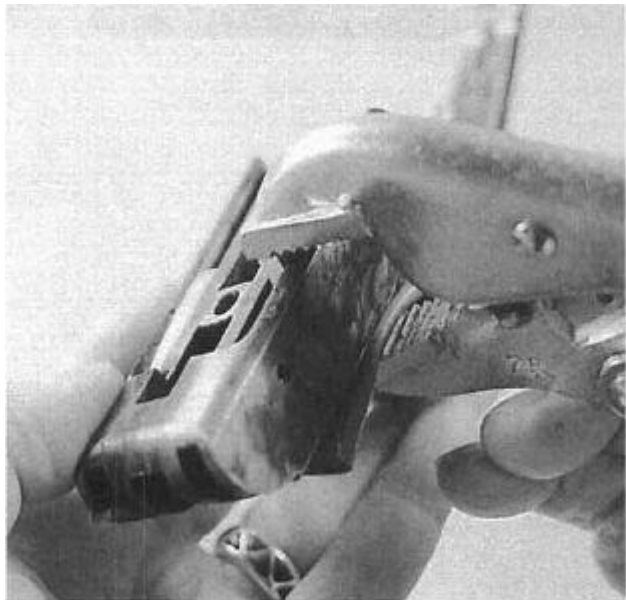


- 20.** The cocking levers are pivoted and retained by separate cross pins on each side. Small vertical screws retain the pins.
- 21.** After the screw is removed, the cocking lever pin is easily pushed out from the inside for removal.



**22.** The cocking, levers are taken out toward the front.





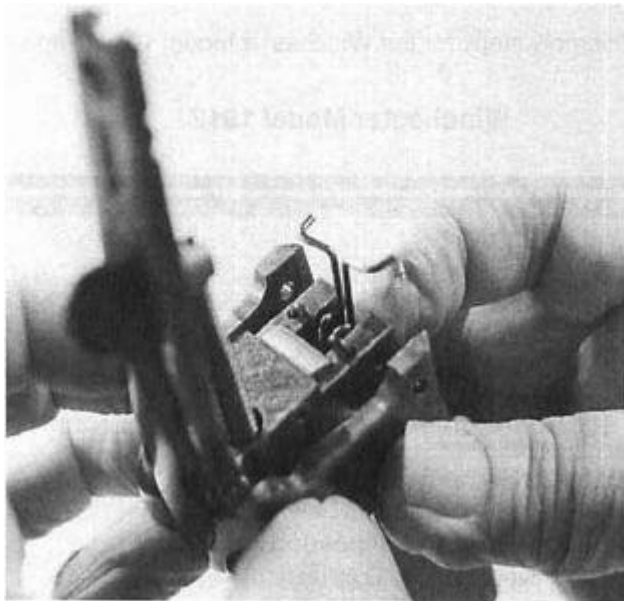
**23.** If removal of the hammers is necessary for repair, you must first compress the hammer springs. This is best done in a



vise, but it can be accomplished with large Vise-Grip pliers, as shown. Pad the receiver with leather to avoid marring, and use a small block of steel at the front of the hammer to compress the spring. Dimensions of the block shown are 1 inch by 5/16-inch by 3/16-inch. With the spring compressed, the hammer pin can be drifted across, and the hammer lifted out.

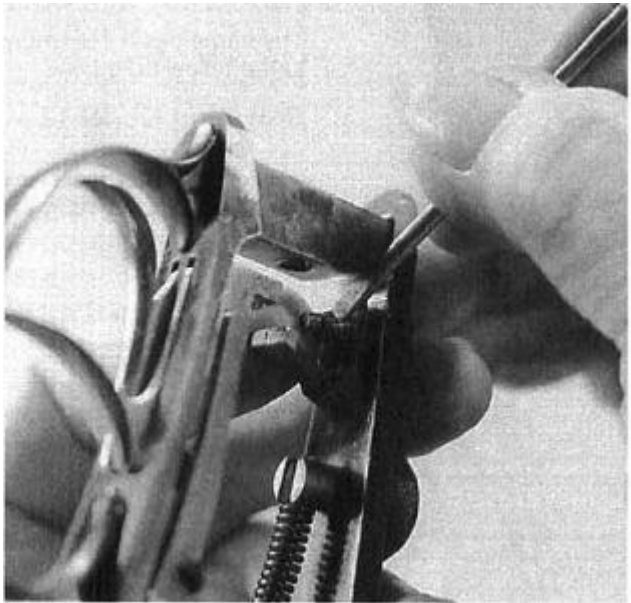
# Reassembly Tips:

1. When installing the sears and sear springs, the springs are oriented as shown. Install one sear, and then push the pin across to engage one spring, then the other. Use pliers to position the spring for entry of the pin.



2. When installing the cotter key that retains the safety system, you must partially compress the spring to ensure that it is

above the key when assembled. The finished flat end of the spring must be toward the key.



# Winchester Model

12



## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Winchester Model 12 also apply to the following guns:

### **Browning Model 12**

### **Winchester Model 1912**

<b>Data:</b>	Winchester Model 12
<b>Origin:</b>	United States
<b>Manufacturer:</b>	Winchester Repeating Arms New Haven, Connecticut
<b>Gauges:</b>	12,16,20, and 28
<b>Magazine capacity:</b>	5 rounds

<b>Overall length:</b>	47-1/2 inches (with 28-inch barrel)
<b>Barrel lengths:</b>	20 to 30 inches
<b>Weight:</b>	6-1/3 to 8-3/4 pounds

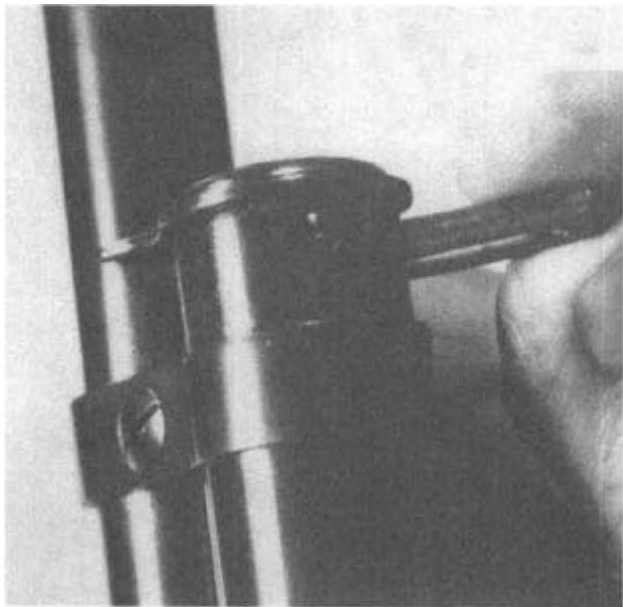
From 1912 to 1965, the Model 12 was the undisputed king of the slide-action shotguns, and was offered in a wide variety of options in barrel length,



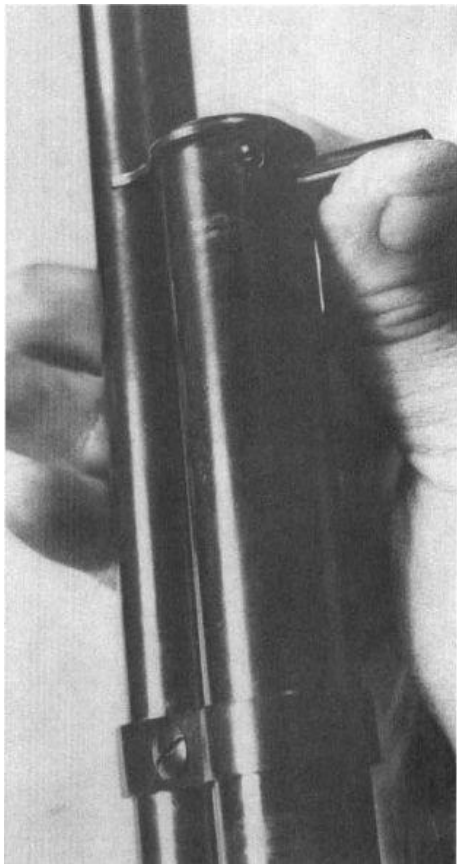
choke, stock style, and other features. After the gun was discontinued, public demand induced Winchester to bring it back in 1972, in 12-gauge only, but it was dropped again in 1980. In 1988, Browning made a limited edition of the Model 12 and these instructions also apply. The Model 12 is mechanically uncomplicated, with only one or two tricky points in the takedown and reassembly.

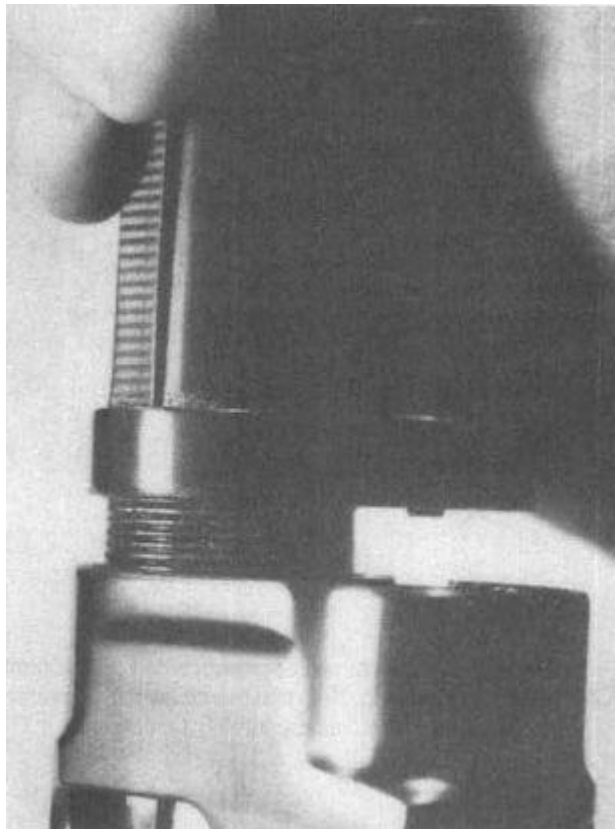
# Disassembly:

1. Cycle the action to cock the hammer, and set the safety in the on-safe position. Push the magazine locking pin downward and toward the right, and pull it out until it stops. Using the pin as a lever, rotate the magazine tube counter-clockwise (front view) about one-quarter turn, until it stops.

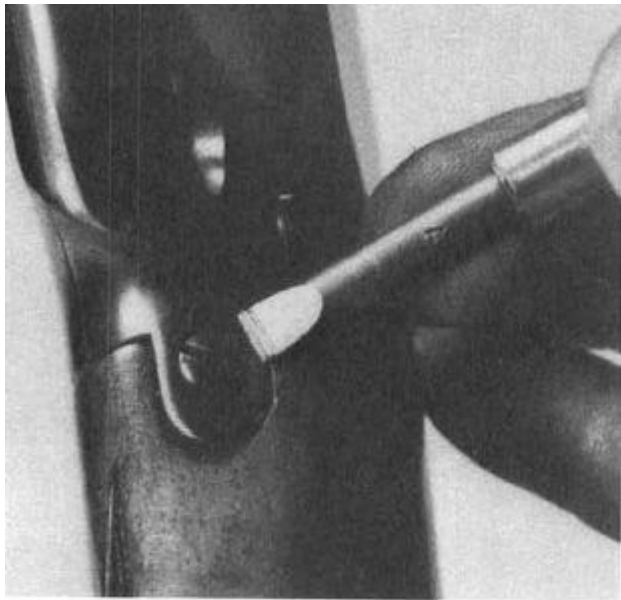


**2.** Pull the magazine tube forward until it stops.





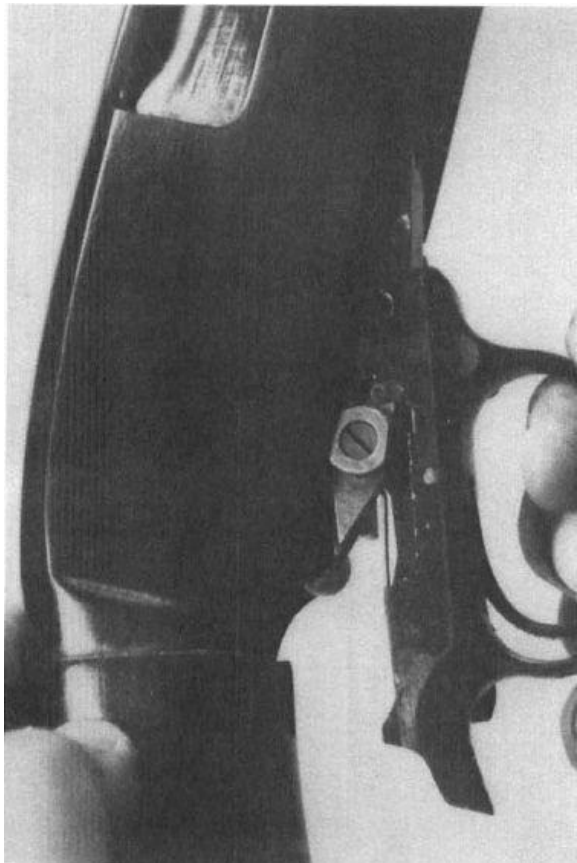
- 3.** Move the action slide and forend assembly forward until it stops, and rotate the barrel and magazine assembly one-quarter turn counter-clockwise (front view). Remove the assembly toward the front.
- 4.** Remove the vertical screw at the rear of the trigger housing.

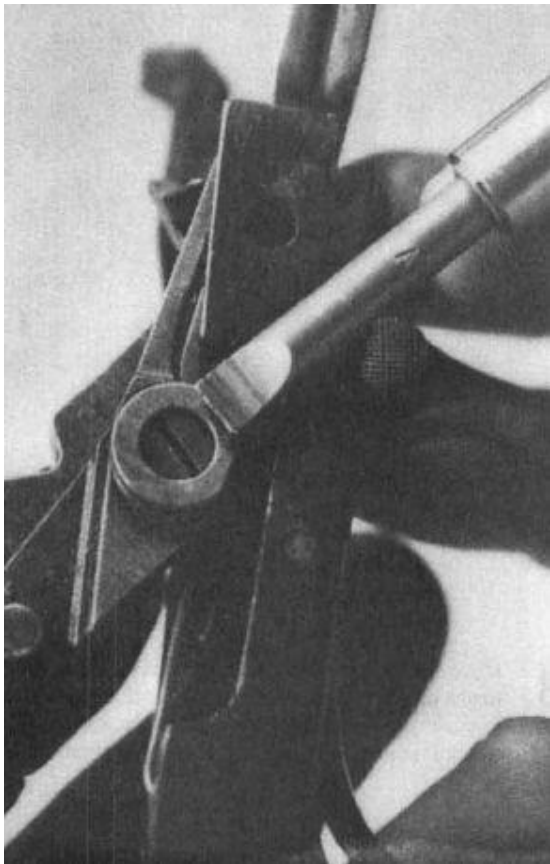


5. Tip the trigger housing downward at the rear, then remove it toward the rear and downward.







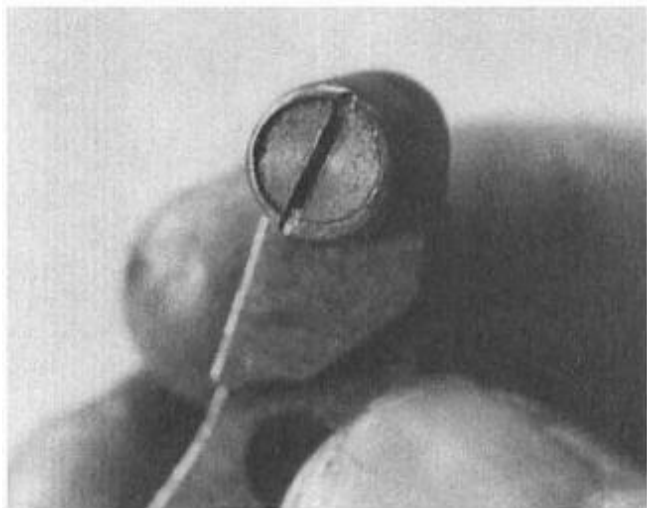


6. Remove the carrier pivot screw, located on the right side of the housing. Note that this screw has a reverse thread, and is removed by turning it clockwise.



7. Take off the carrier upward, and detach the carrier spring from the rear of the carrier. Note that the shell guide plate is mounted on the right side of the carrier by a riveted pin, and removal is not advisable in normal takedown.
  
8. The carrier plunger and spring are removable by backing out the screw on (he left side at the rear of the carrier. Note that this screw is usually staked in place, and should be removed only for repair

purposes.

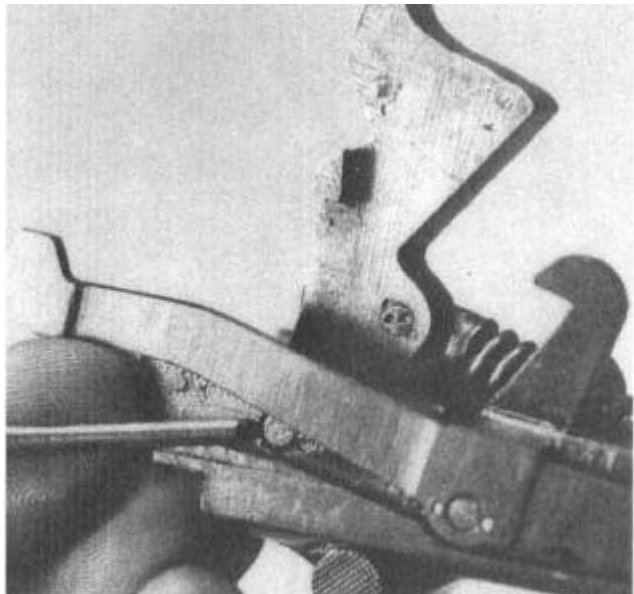




**9.** Move the safety to the off-safe

position, and insert a small pin (an opened paper clip will do) in the small vertical hole near the rear tip of the hammer spring guide. Restrain the hammer, pull the trigger, and ease the hammer forward. The hammer spring will be trapped on the guide by the inserted pin.

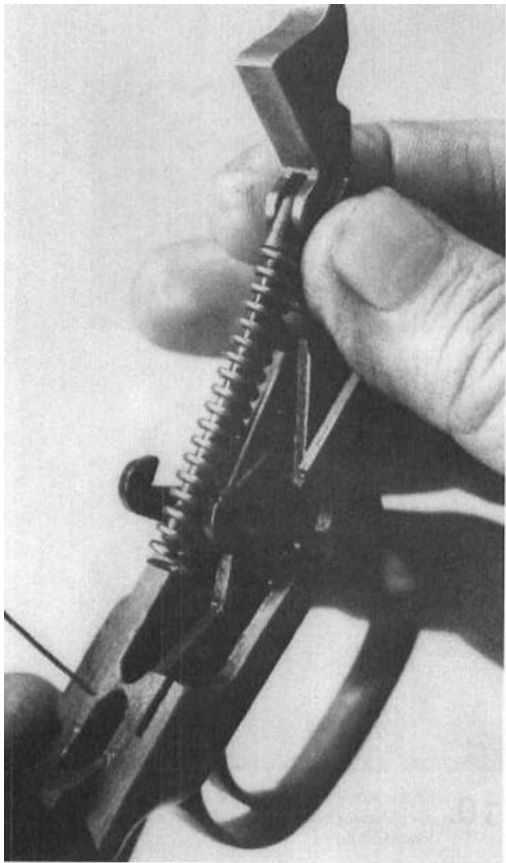




- 10.** Lift the front of the slide latch to clear the left tip of the hammer cross pin, and drift out the cross pin toward the

right.

- 11.** Exert rearward pressure on the hammer, remove the pin holding the guide and spring, and take off the hammer, guide, and spring upward, slowly easing the spring tension. The spring guide can be taken off the hammer by drifting out the cross pin, but the pin is riveted, and in normal takedown should be left in place.

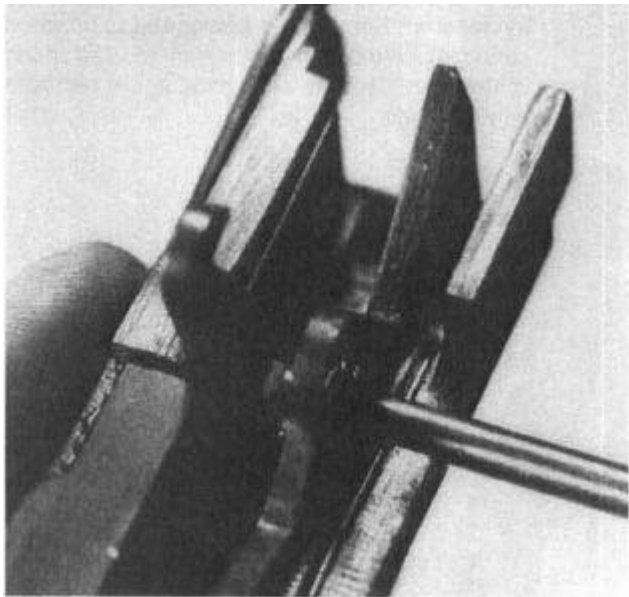


**12.** left end of the trigger cross pin, and drift out the Tip the slide latch upward at the rear to clear the trigger pin toward the right.



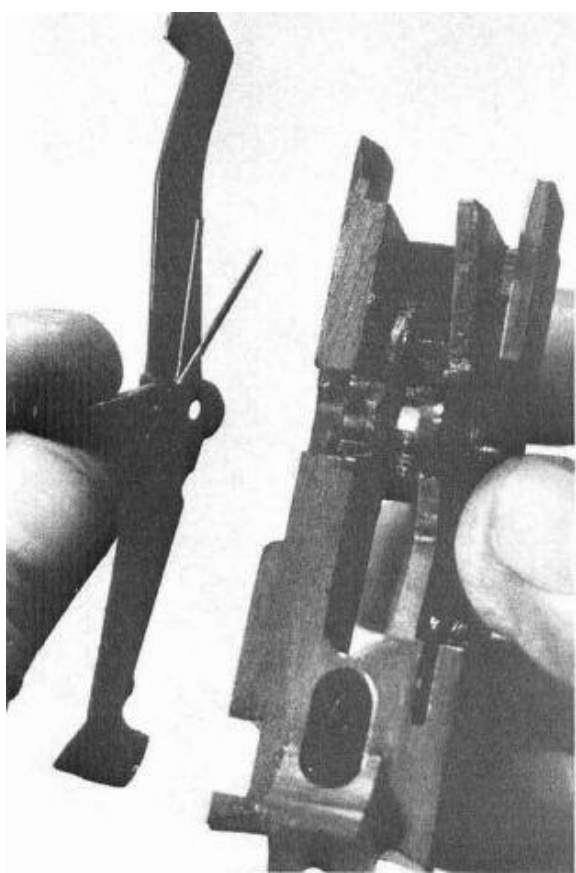


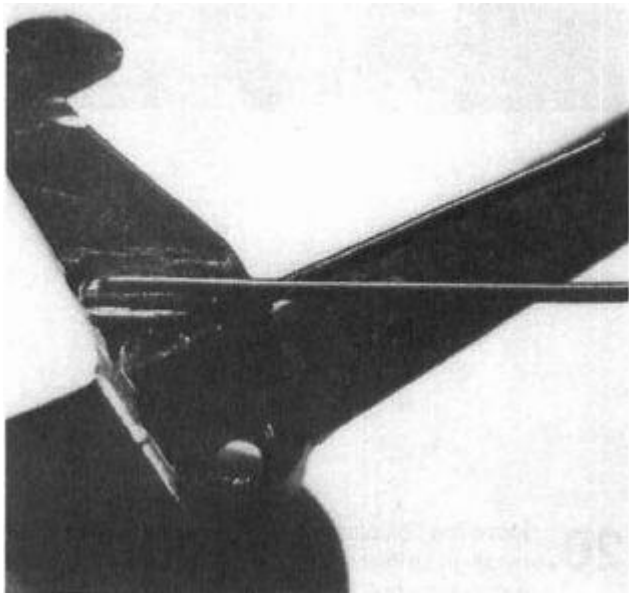
- 13.** Remove the trigger upward, along with the small coil spring mounted in the underside of its forward extension.
  
- 14.** Insert a screwdriver from the right side, through the access hole provided, and back out the screw that retains the slide latch.



**15.** Move the slide latch upward,  
and remove it toward the left.

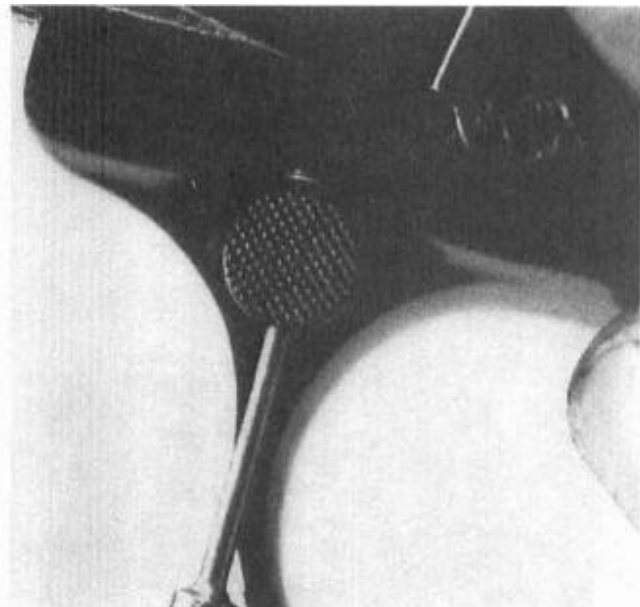






**16.** The two springs on the slide latch are staked in place on its inside face. Unless necessary for repair, these should not be

removed. If removal is necessary, the top spring has an access hole on the outside of the latch to admit a small-diameter drift. The lower spring must be pried out.



**17.** Set the safety in the on-safe position, and insert a small-diameter drift punch in the hole on the underside of its

left end to depress the plunger and spring upward. Remove the safety toward the right, and take out the plunger and spring downward.

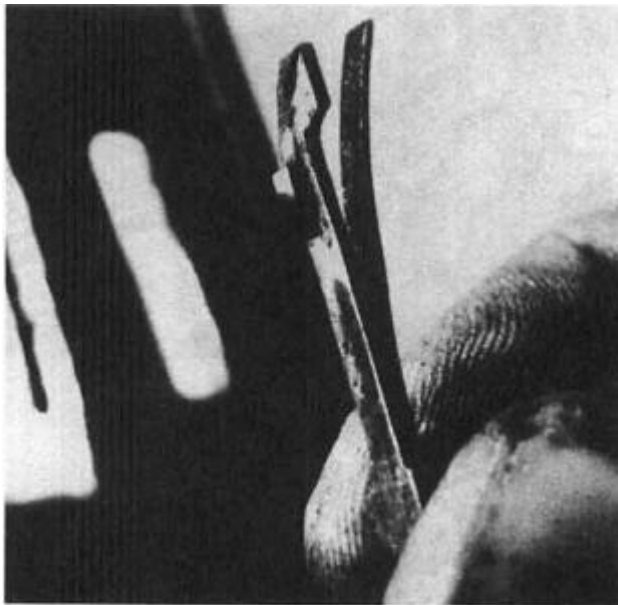


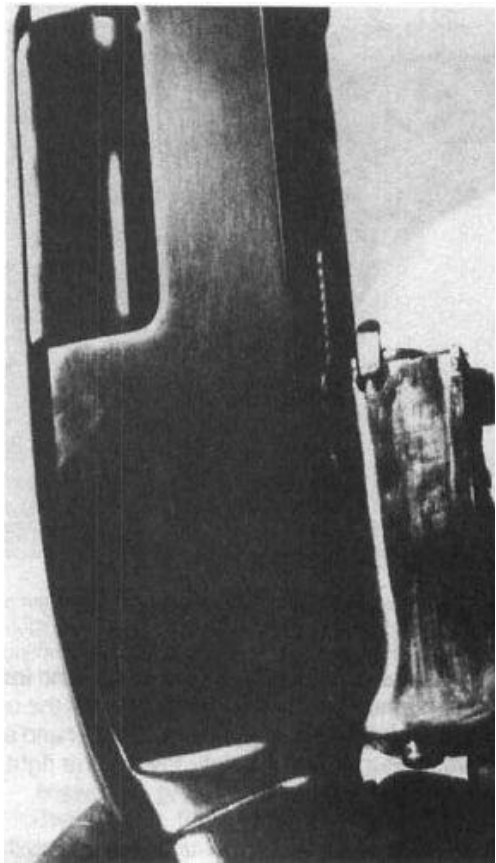
**18.** Tip the rear tail of the shell stop out of its recess, move it toward the rear, then remove it from the bottom of the receiver.

**19.** Just above the shell stop recess, in the lower left edge of the bolt, the two ends of the bolt retaining lever can be seen. Push the rear end of the lever inward, away from the receiver well, and the rear of the bolt can then be moved downward, out of its locking recess in the top of the

receiver. Insert a small screwdriver behind the bolt to nudge the rear tip of the ejector out of its recess in the left wall of the receiver. Remove the ejector and its attached spring from the bottom of the receiver. The spring is staked in place on the ejector, and is removed only for repair.

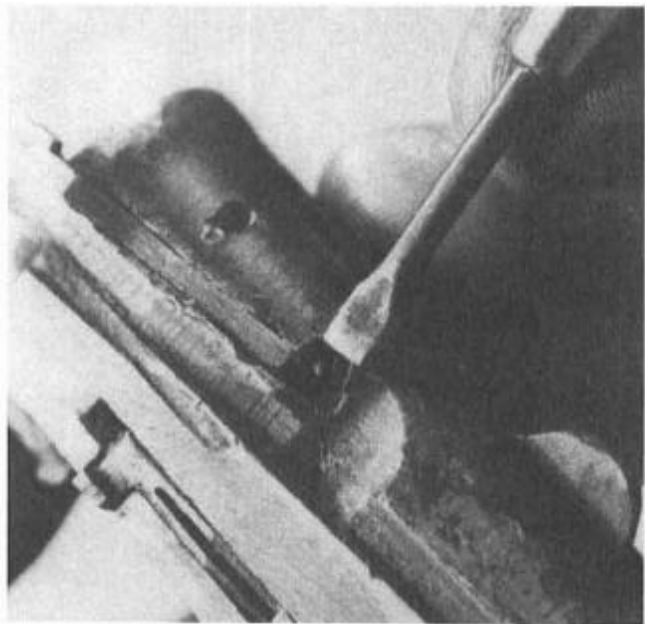






**20.** Move the bolt almost all the way to the rear of the receiver, tip its rear end outward, then the front. and remove the bolt from the bottom of the receiver.

**21.** Remove the cross screw on the left side of the bolt, restraining the firing pin retractor as the screw is taken out.



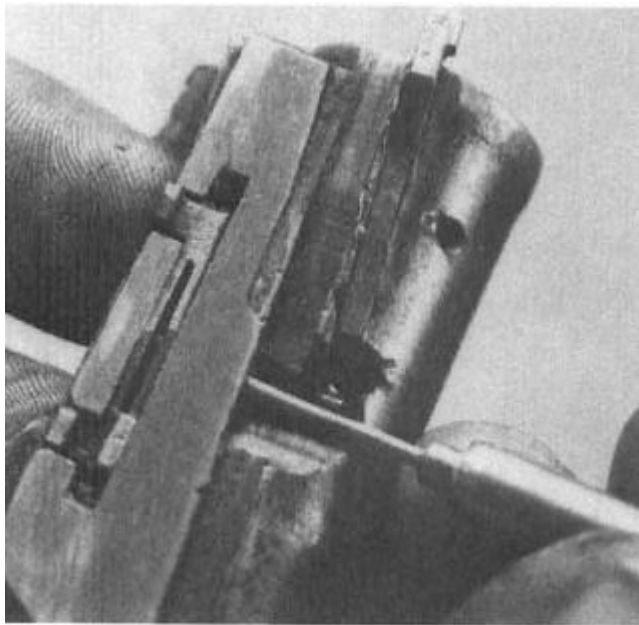
**22.** Remove the firing pin retractor upward, and take out its spring from the top of the bolt.





**23.** Removal of the retractor will

free the firing pin to be taken out toward the rear.

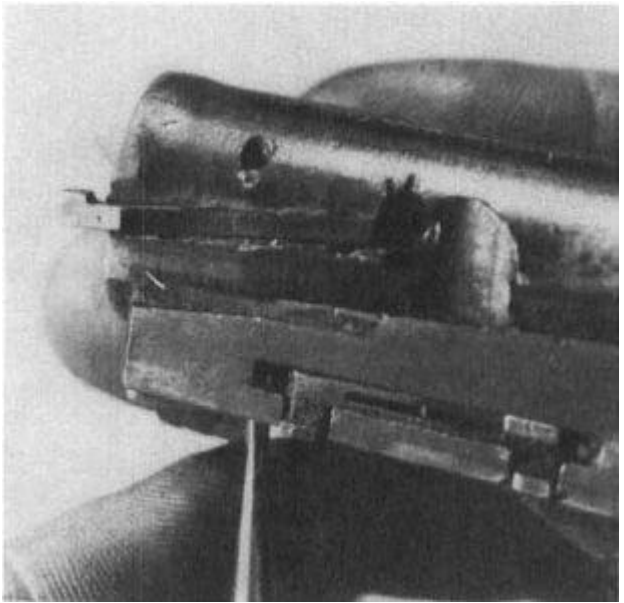


**24.** The bolt retaining lever is

retained on the left side of the bolt at the lower edge by a vertical pin of small diameter. The pin is drifted out downward, and the lever is removed toward the left.

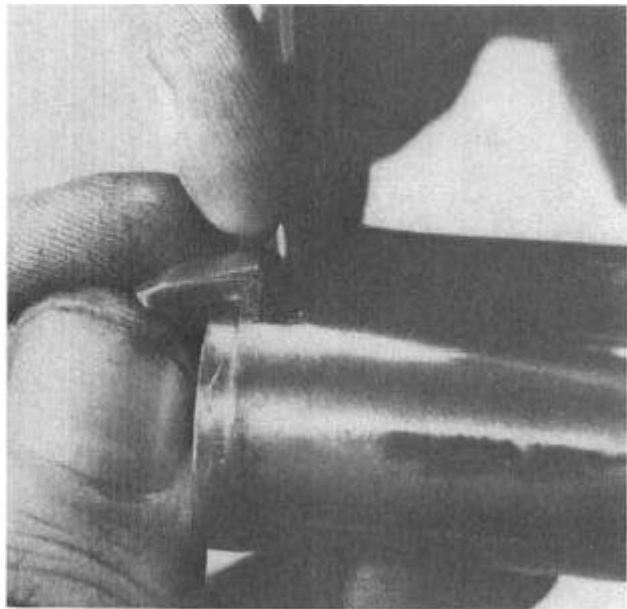
- 25.** The left extractor and its coil spring are retained by a vertical pin which is drifted out upward.

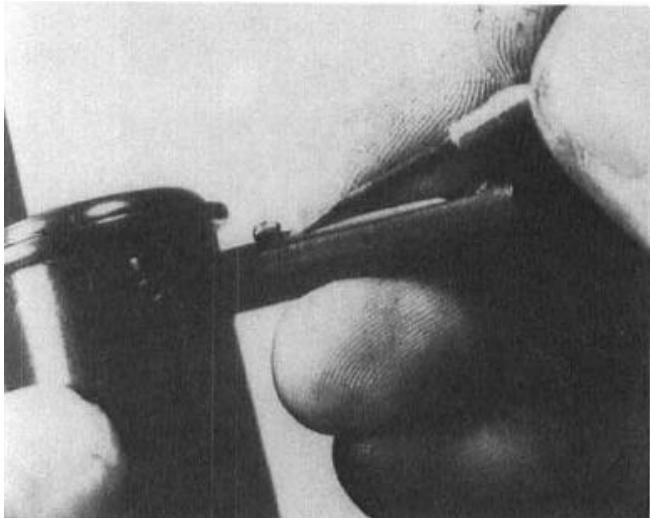




**26.** To remove the right extractor, insert a small screw- driver between the extractor and its plunger, depress the plunger

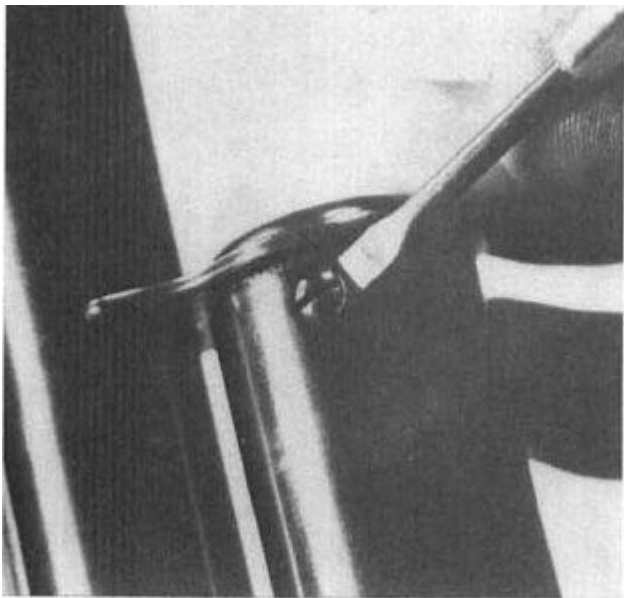
toward the rear, and lift the extractor out of its recess. Release the spring tension slowly, and remove the plunger and spring toward the front.





**27.** The magazine locking pin is removed by depressing the round-wire spring in its slide-slot to clear the rolled tip of the spring, and the pin is then pulled out of the magazine

tube.

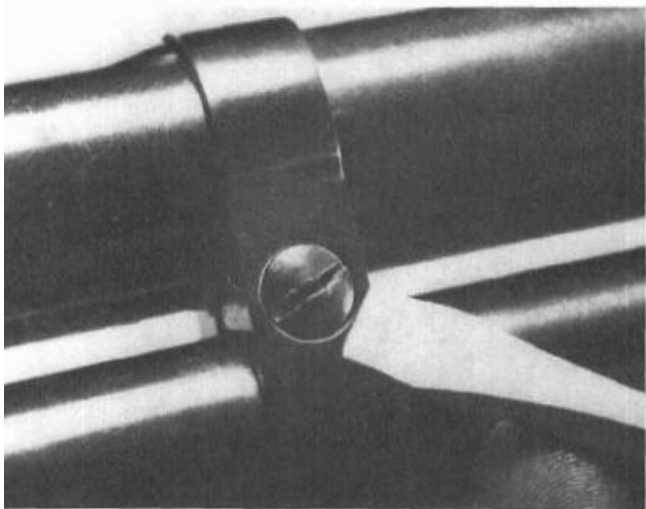


**28.** Remove the two opposed screws at the front of the

magazine tube, and take out the magazine plug and the plug stop plate toward the front. Caution: The magazine spring will be released, so restrain it and ease it out. Remove the magazine spring and follower toward the front.

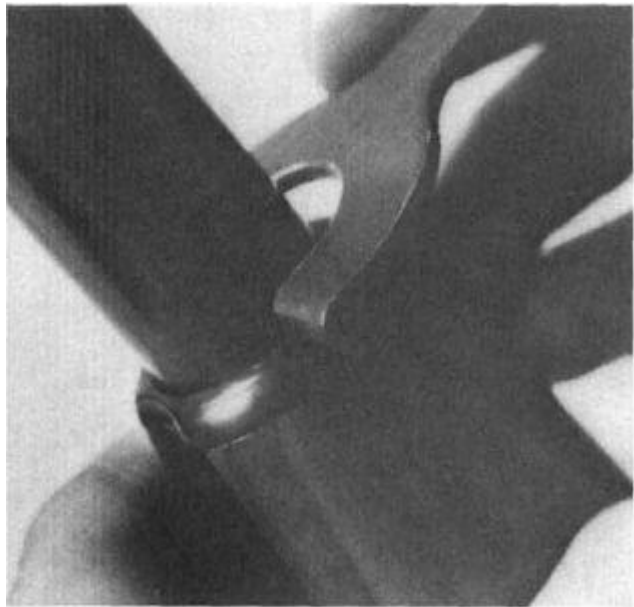
- 29.** Remove the two opposed screws in the magazine tube hanger, and move the hanger forward off the tube and barrel. The flat action slide tension spring will be released as the hanger is removed, and the center

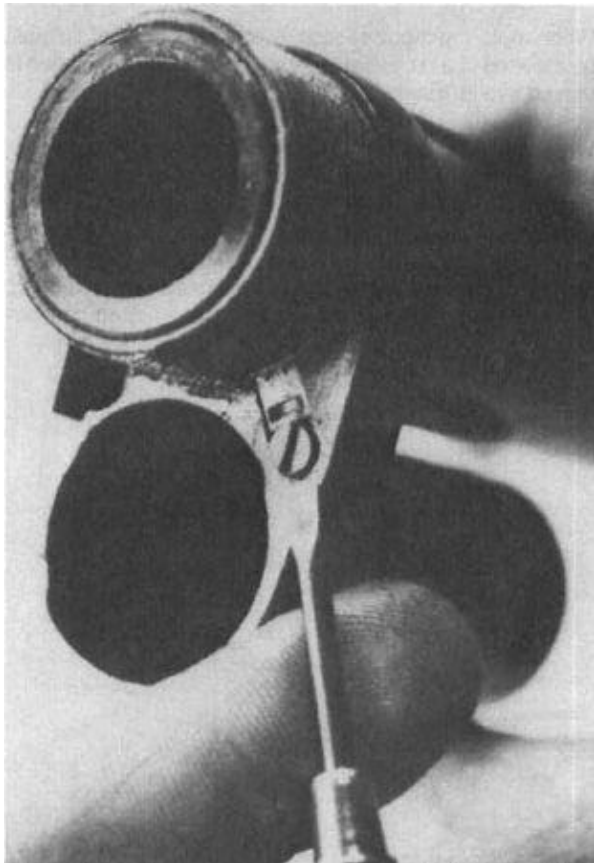
bushing in the hanger can be taken out. After the hanger is removed, the magazine tube and forend assembly can be taken off toward the front.



30. Use a Brownells Model 12 forend wrench to take off the forend cap nut, and remove the action slide assembly toward the rear. Take out the magazine tube toward the front, and slide the buffer spring off the magazine tube toward the rear.





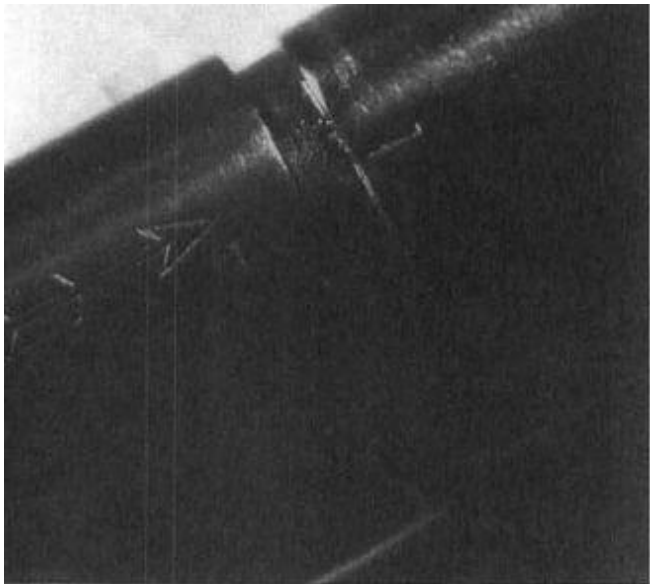


**31.** Barrel tightness in the receiver is adjustable by backing out the adjusting sleeve lock screw and sliding the lock piece out of engagement with the teeth on the edge of the sleeve to free it. Turning the sleeve clockwise (rear view) will tighten the barrel engagement. If necessary, the sleeve can be completely unscrewed from the rear of the barrel and removed. The buttstock can be removed by taking off the buttplate and using a B-Square stock tool or a long-shanked screwdriver to

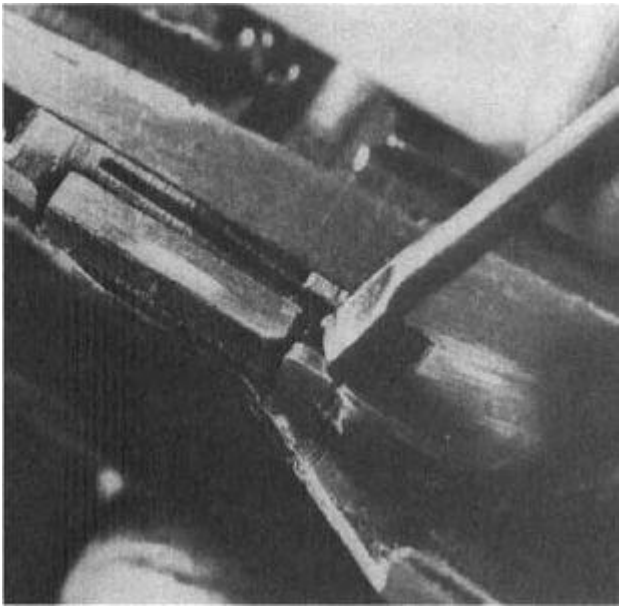
back out the stock bolt.

# Reassembly Tips:

1. When replacing the magazine tube, it is possible to install it incorrectly, in inverted position. There is an index mark on the tube, and an arrow on the underside of the receiver extension. Align these when replacing the end plug, and the tube will be properly installed.



2. When replacing the bolt in the receiver, be sure the rear tip of the bolt retaining lever is pushed inward.



When replacing the shell stop, note that its forward tip must be inserted in a

recess at the front before the rear portion is moved into its recess.

When replacing the hammer and hammer spring assembly, use the same method as in takedown, trapping the spring with a pin in the guide at the rear to hold the tension while the hammer cross pin is installed.

Remember that the carrier pivot screw has a reversethread. When turning it back into place, it must be turned counterclockwise.



# Winchester Model

37



**Data:** Winchester Model  
37

**Origin:** United States

**Manufacturer:** Winchester  
Repeating Arms  
New Haven,  
Connecticut

**Gauges:** 12, 16, 20, and 410

**Overall  
length:** 44-1/2 inches  
(with 26-inch  
barrel)

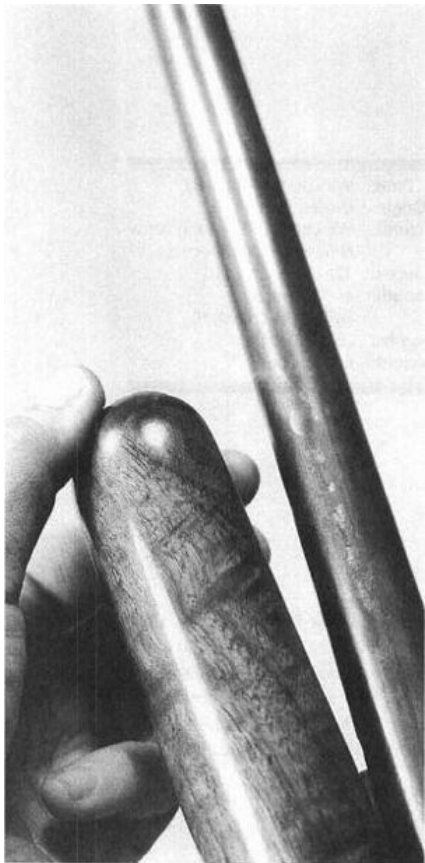
**Barrel  
lengths:** 26 to 32 inches

**Weight:** 6-1/2 pounds

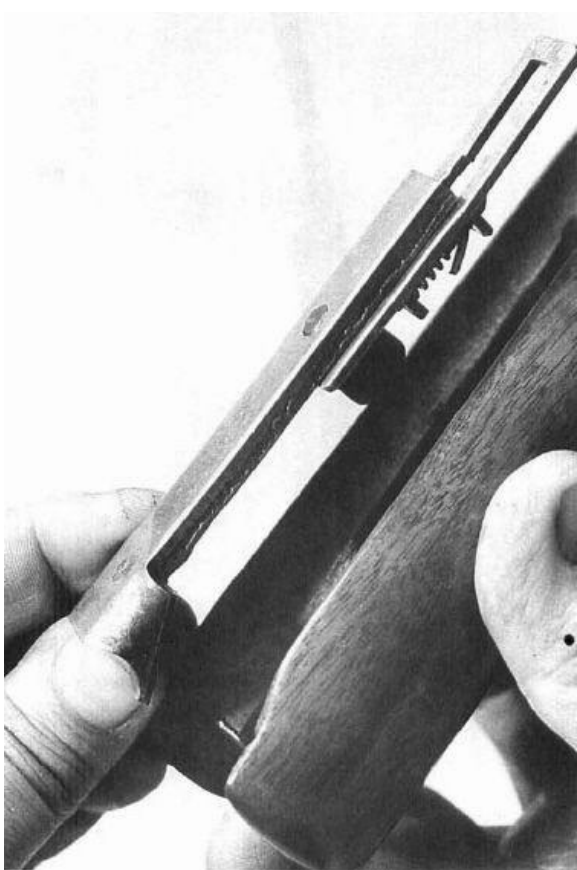
From 1936 to 1963, the Model 37 was the king of the single-barrel outside hammer shotguns. Actually, it didn't have a hammer at all. A hammer-like lever in a slot in the upper tang was attached to a cylindrical striker/firing pin unit inside. In use, the effect was the same as an external hammer. The Model 37 was replaced in the Winchester line by the Model 370 (1968), then the Model 37A (1973), but these guns are entirely different mechanically.

# Disassembly:

1. Pull the front of the forend away from the barrel until the retaining catch releases. and remove the forend downward and toward the front.



2. Remove the screw on the underside of the forend. Remove the forend iron upward.



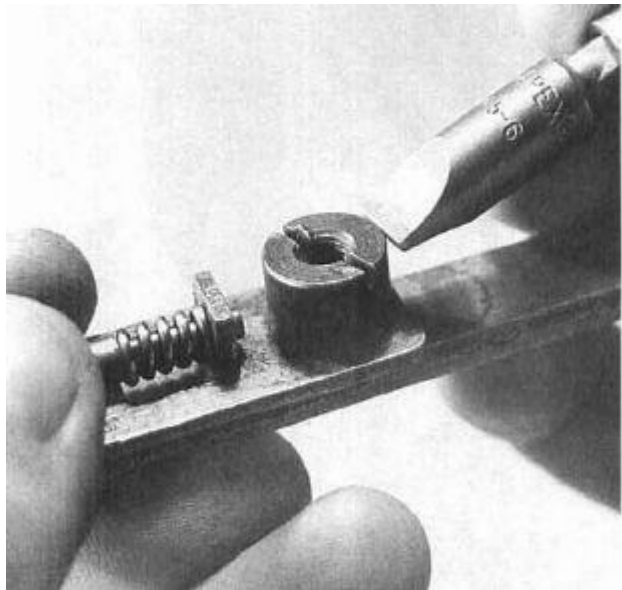


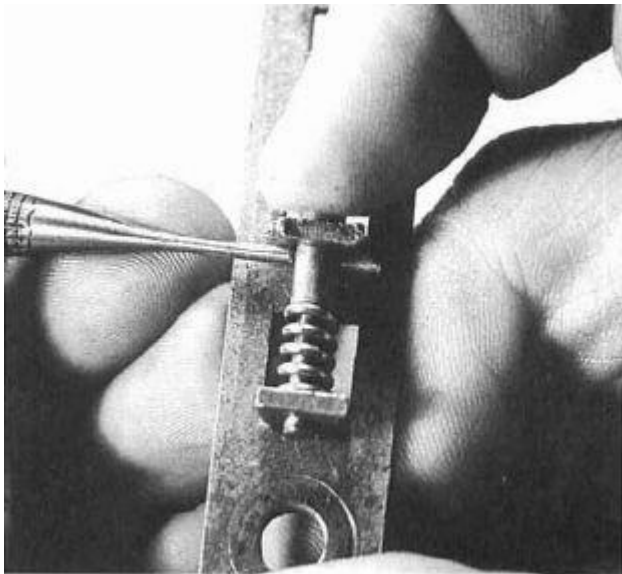
**3.** Remove the spacer plate at the rear of the forend.



**4.** Use a screwdriver with a wide

and thin blade to remove the mounting stud from the forend iron, and separate the latch plate from the front of the forend iron.

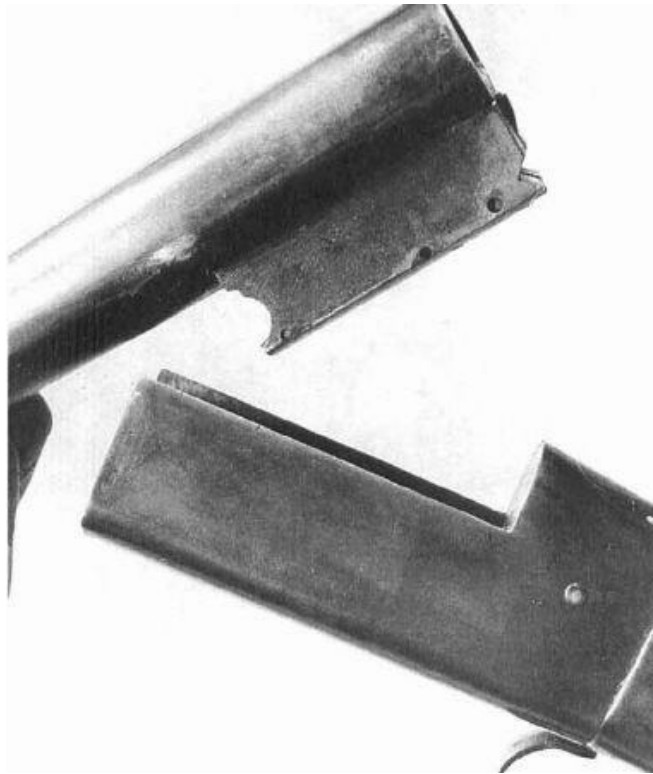




5. Restrain the forend latch plunger, and push out the cross pin in the latch housing to release the plunger and spring

for removal toward the front.

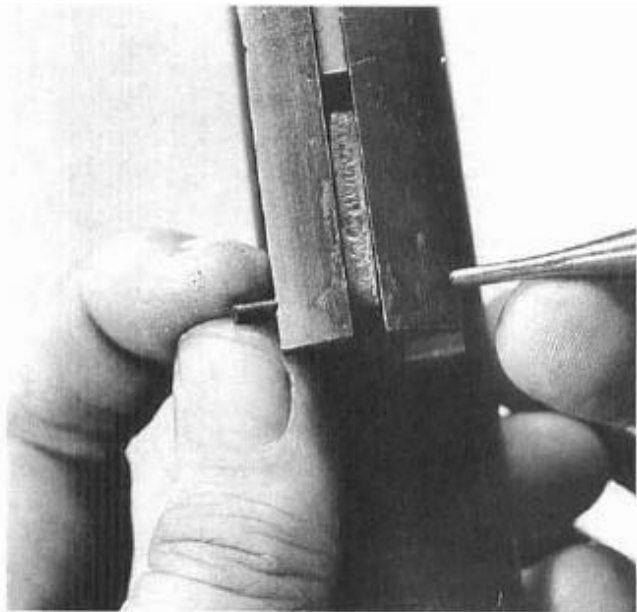
- 6.** Operate the barrel latch, tip the barrel down beyond its usual opened position, and tab the barrel off upward.

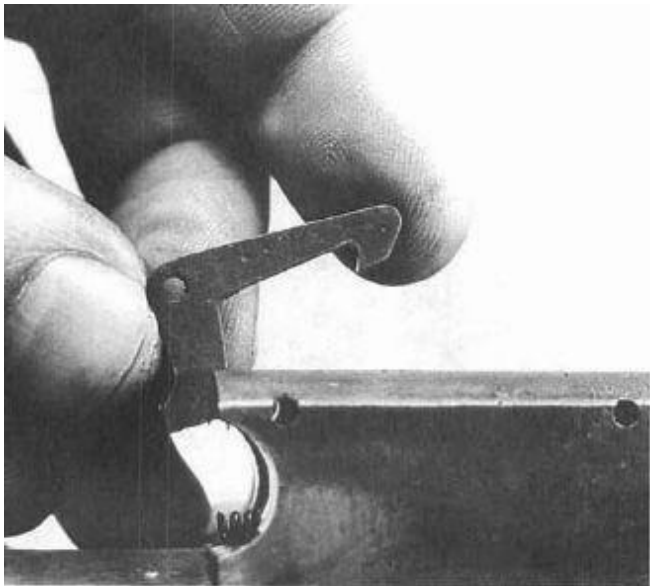




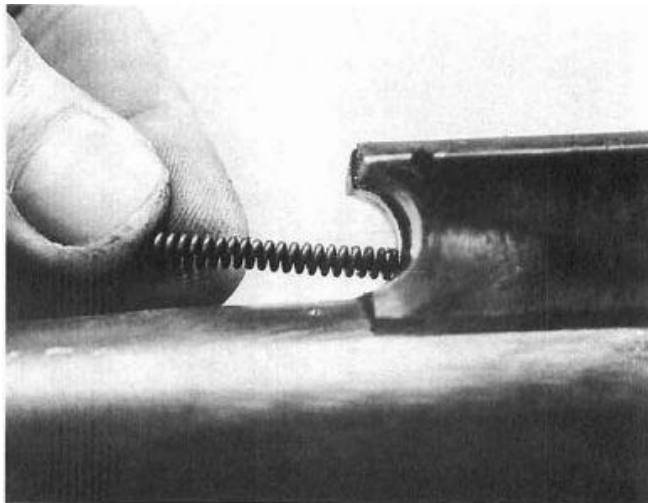
7. Set a drift punch against the upper lobe of the ejector catch, and tap it with a hammer to push the catch arm toward the rear, releasing the ejector to snap out, partially relieving the tension of its spring.
8. Drift out the cross pin at the front of the barrel underlug.







9. Remove the ejector catch toward the front and downward.

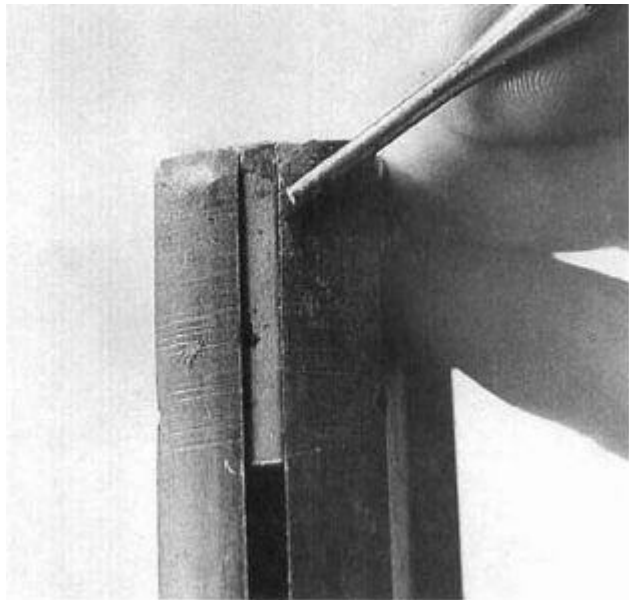


**10.** Remove the ejector spring toward the front.



**11.** Lift the ejector upward, and remove it toward the rear.

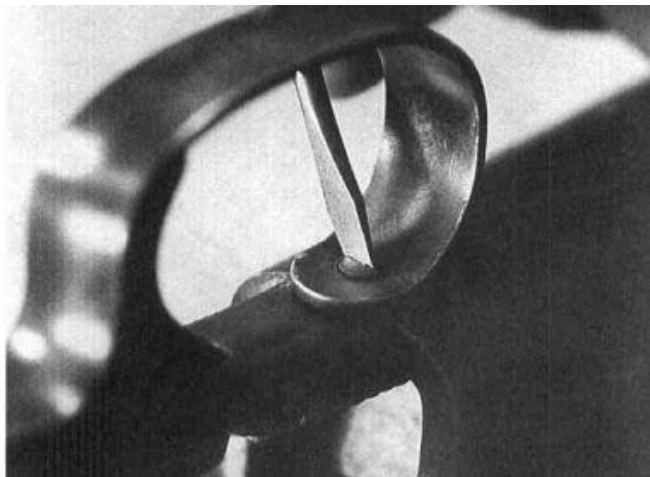
**12.** Drifting out the large and small cross pins at the lower rear of the barrel underlug will allow removal of the ejector guide.





**13.** Remove the buttplate, and use a B-Square stock tool or a

long-shanked screwdriver to back out the stock mounting bolt. Remove the bolt, washer, and buttstock toward the rear.

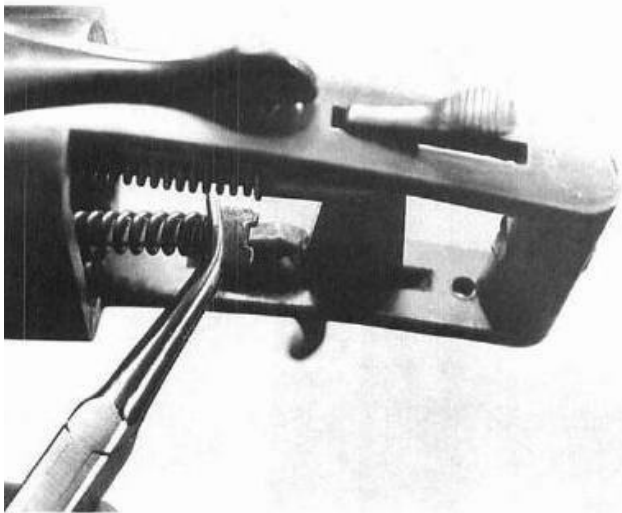


**14.** Remove the screw at the rear of the trigger guard. Remove



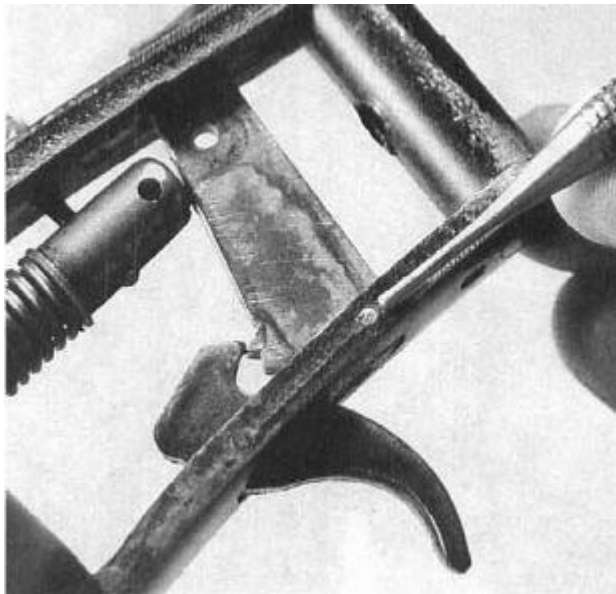
the screw at the front of the trigger guard, using an off set or angled-lip screwdriver, as shown. Take off the guard downward.

- 15.** Grip the rear tip of the guide for the combination trigger and barrel latch spring with sharp-nosed pliers. Depress the guide and spring slightly toward the front, lift the guide fork from its notch on the trigger and remove the guide and spring toward the rear.



**16.** Push out The cross pin in the rear fork of the striker, near the top of the cocking lever.



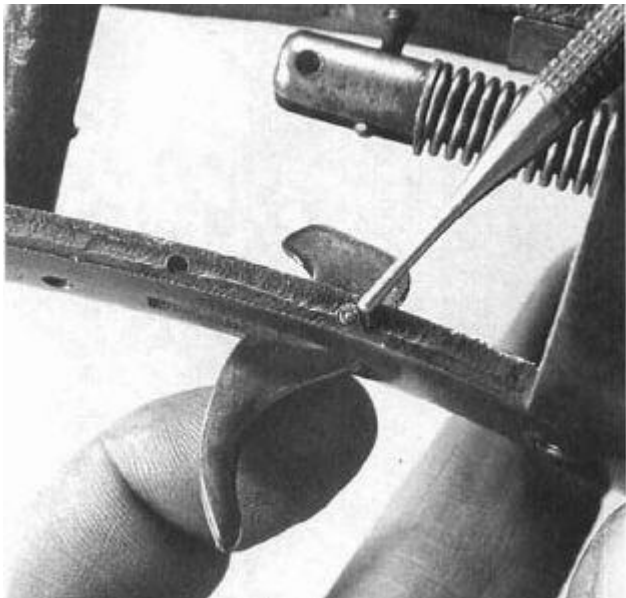


**17.** Push out the cocking lever pivot pin, in the lower tang of the receiver.

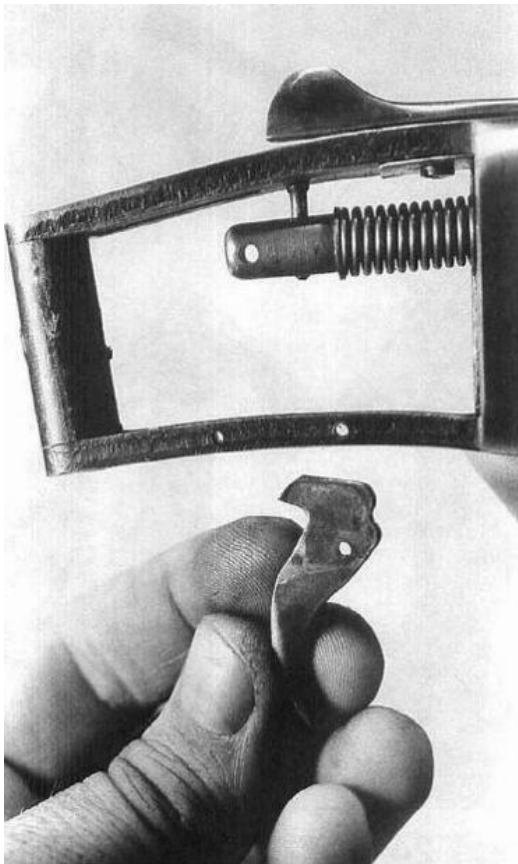
**18.** Remove the cocking lever upward.



**19.** Drift out the trigger cross pin.



**20.** Remove the trigger downward.

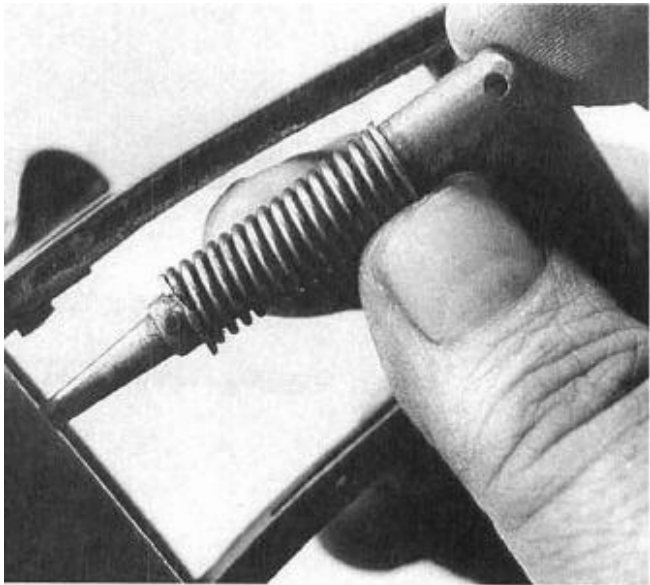




- 21.** Move the barrel latch lever toward the right, and remove the screw in the upper tang, just forward of the cocking lever slot.

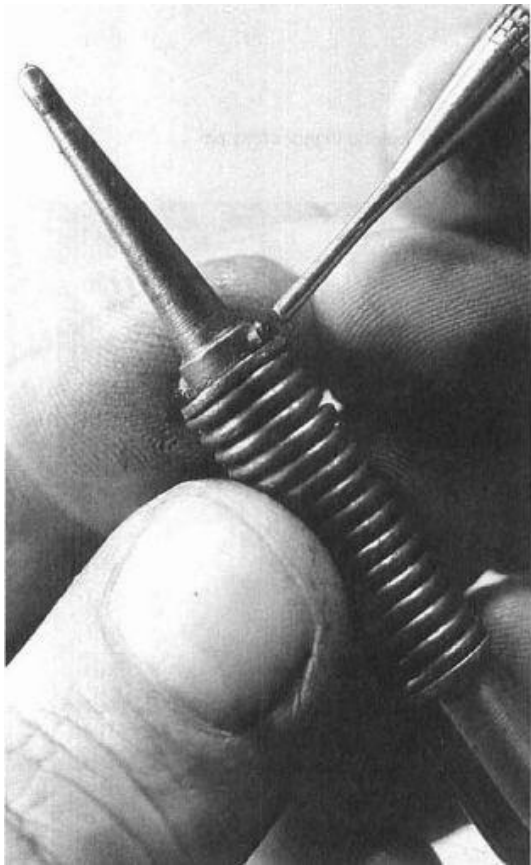


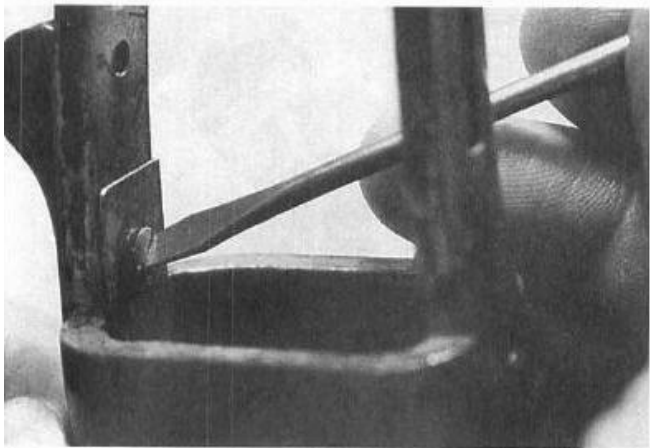
**22.** Move the striker assembly to the rear, then remove it toward either side.



**23.** Drifting out the cross pin in the striker assembly will allow removal of the striker spring and its end-washers toward

the front. Caution: The spring is powerful. If removal is not necessary for repair, it's best to leave this assembly intact.

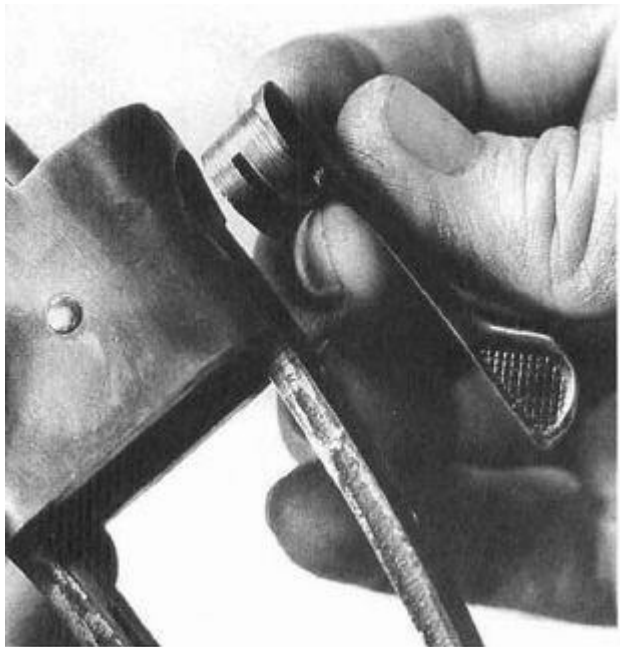




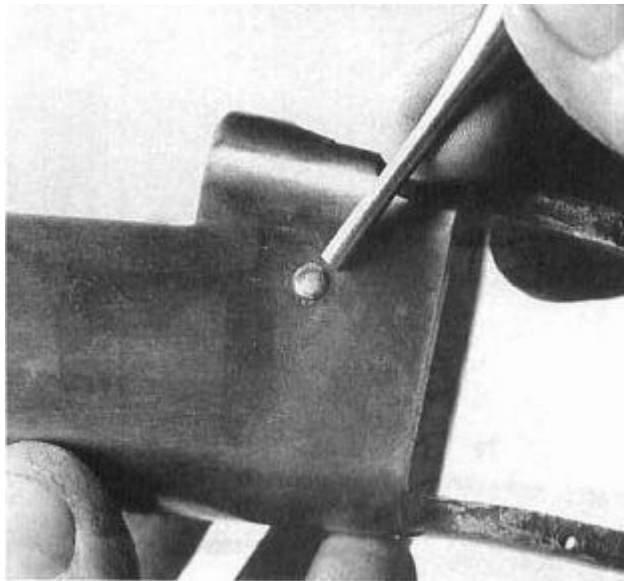
**24.** The barrel latch lever is retained by a spring plate on the underside of the upper tang, and the plate is held by a vertical screw. There is no direct access, and an offset or angled-tip screwdriver must

be used to remove the screw.  
Take off the plate downward  
and toward the rear.

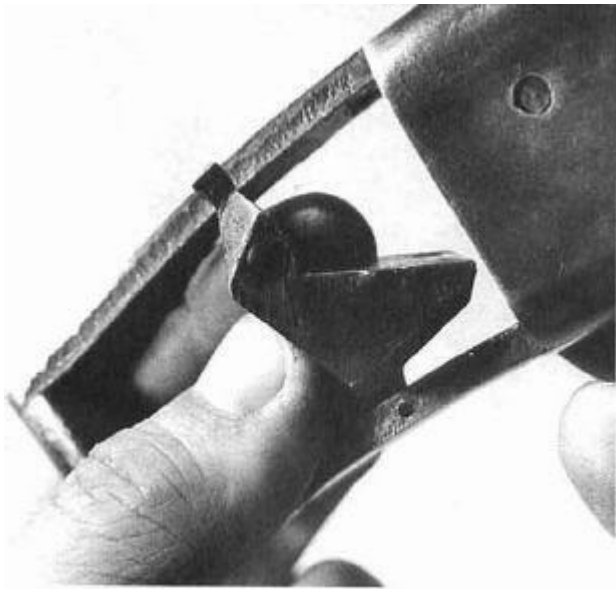
**25.** Remove the barrel latch lever  
upward.



**26.** Drift out the large cross pin at the rear center of the receiver.



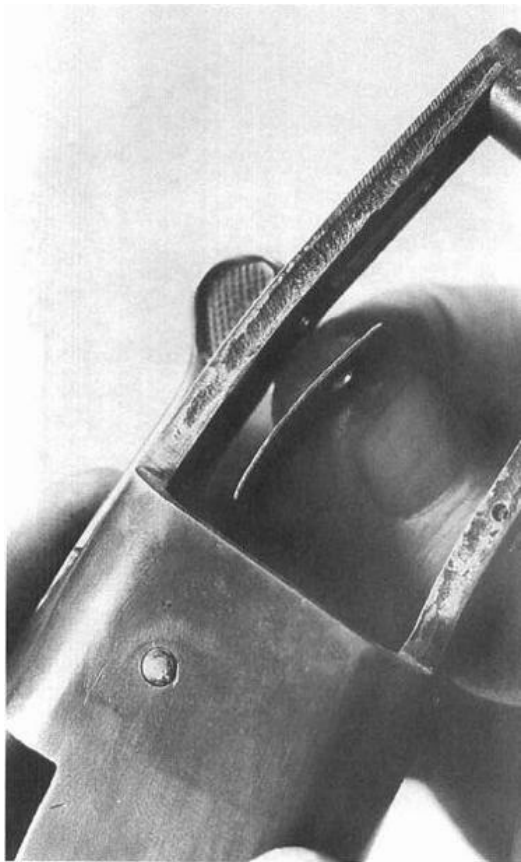




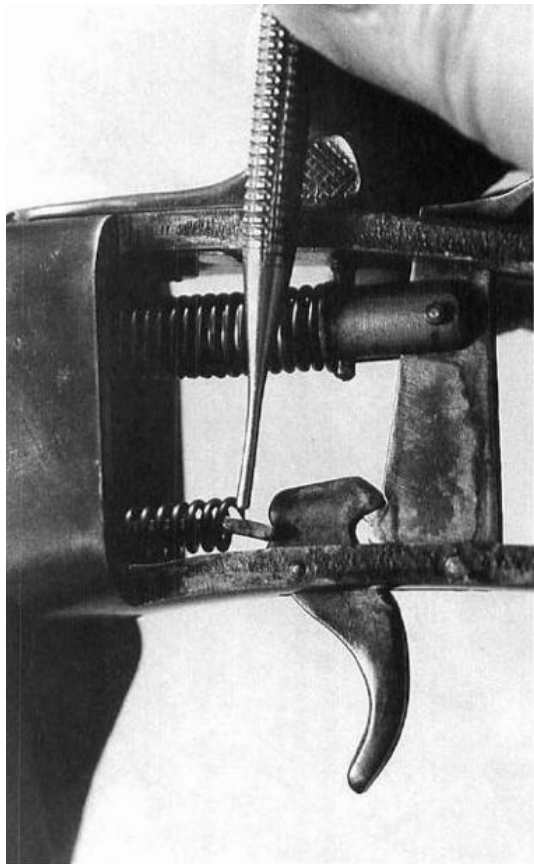
**27.** Remove the barrel latch block toward the rear, and out either side.

# Reassembly Tips:

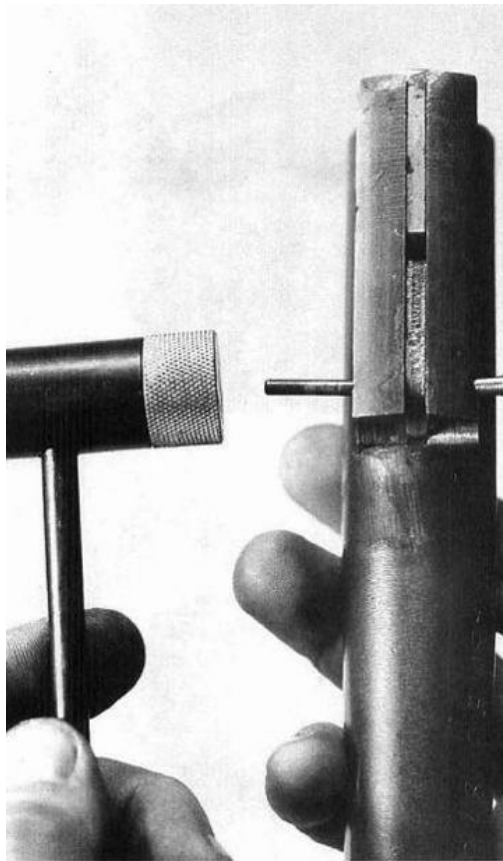
1. When replacing the barrel latch lever retaining plate, note that it is slightly curved, and that the concave side of the curve goes downward, as shown. Be sure the front of the plate engages its recess in the base of the lever.



2. Note that the rear tip of the guide for the combination trigger and barrel latch spring is angled, and be sure it is installed with the angle downward, as shown.



3. When replacing the ejector catch, use a tool at the front to push the catch toward the rear, compressing the spring, and insert a drift punch through the cross hole to hold the catch in position for insertion of the cross pin.



# Winchester Model

97





## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Winchester Model 97 also apply to the following guns:

**Winchester Model 97 Solid Frame**

**Winchester Model 1897**

**Winchester Model 97 Trench Gun**

**Data:** Winchester Model  
97

**Origin:** United States

**Manufacturer:** Winchester  
Repeating Arms

**Gauges:** 12 and 16

**Magazine  
capacity:** 5 rounds

47-1/2 inches

<b>Overall</b>	(with 28-inch
<b>length:</b>	barrel)
<b>Barrel length:</b>	20 to 32 inches
<b>Weight:</b>	7-1/2 to 7-3/4 pounds

A slight reworking of John M. Browning's original design of 1893, the Model 1897 was in production for 60 years. By the time it was discontinued, in 1957, nearly a million of these guns had been sold. It was offered in both

fixed barrel and takedown versions, and was also made with a short barrel for police and military use. The mechanism is fairly complicated, and complete takedown and reassembly may present some difficulties for the amateur.

# Disassembly:

1. Push the magazine locking pin downward and toward the right, and pull it out until it stops. Using the pin as a lever, rotate the magazine tube about one-quarter turn counter-clockwise (front view), until it stops. Pull the magazine tube toward the front until it stops.



2. Move the forend and action slide assembly forward until it stops, and rotate the barrel and magazine assembly about one-

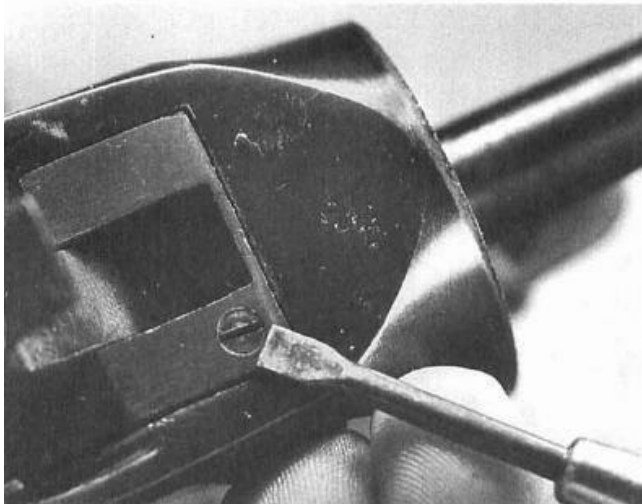
quarter turn counter-clockwise (front view) until it stops. Remove the barrel, magazine, and action slide assembly toward the front.





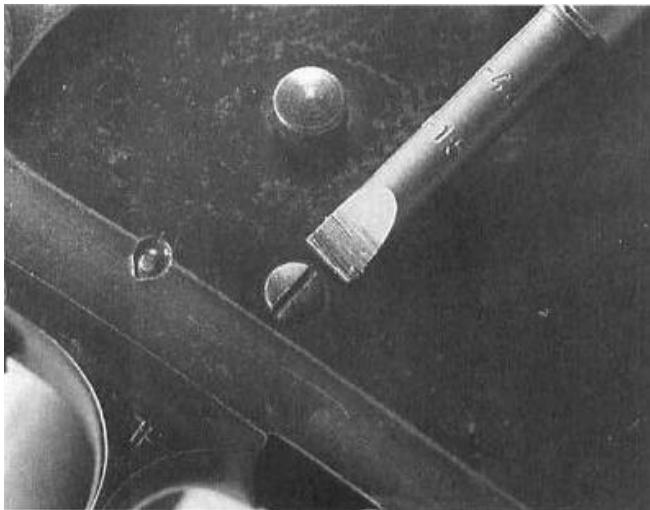


- 3.** Remove the buttplate, and use a B-Square stock tool or a long-shanked screwdriver to back out the stock bolt. Remove the buttstock toward the rear.
  
- 4.** Remove the carrier pin retaining screw, located in the top left rear of the carrier, beside the hammer.

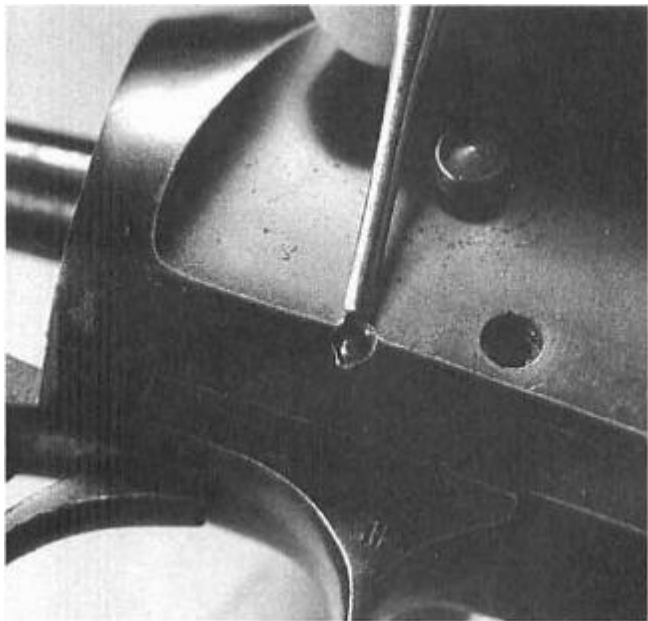


5. Remove the carrier pivot pin toward either side.





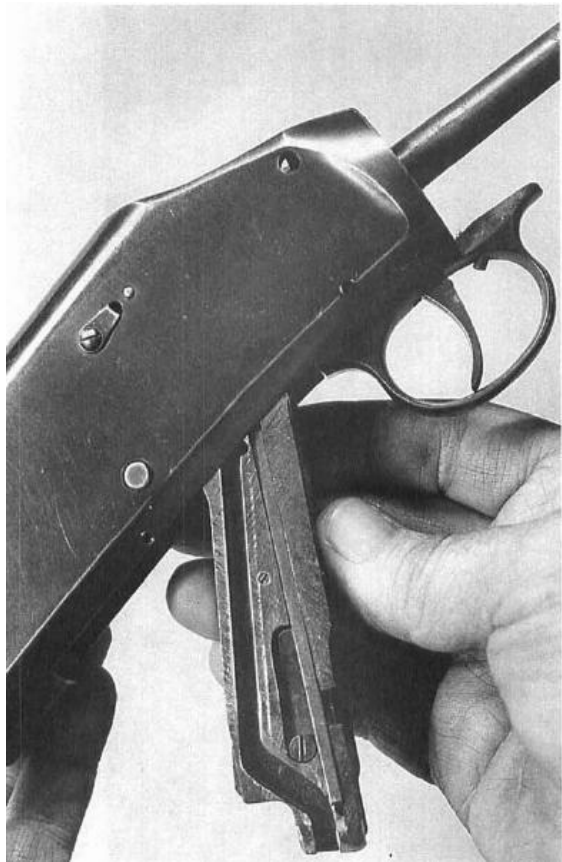
6. Remove the small screw on the right side of the receiver, just forward of the trigger cross pin.



**7.** Drift out the trigger cross pin.

**8.** Cock the hammer, push the

carrier release button on the right side, and insert a tool between the bolt and carrier to nudge the carrier downward. Remove the carrier downward and toward the front.

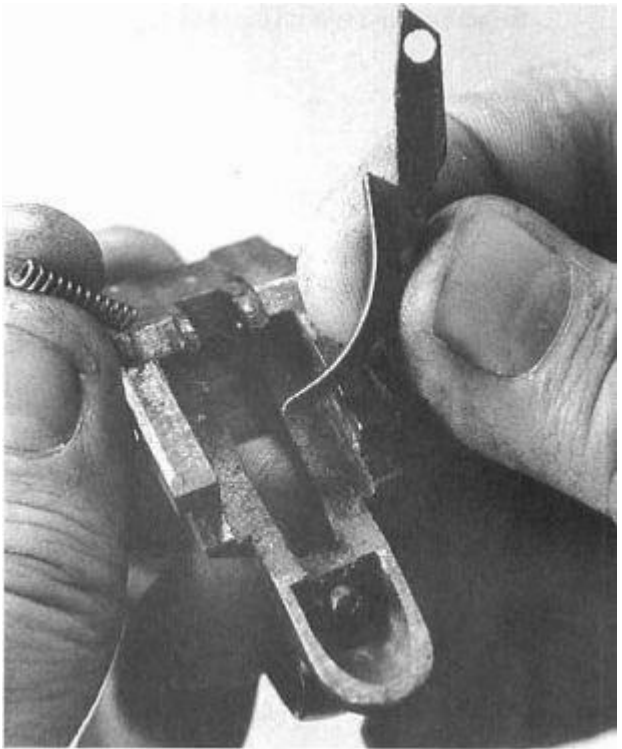




9. Slide (or tap with a nylon hammer) the trigger guard unit out toward the rear.

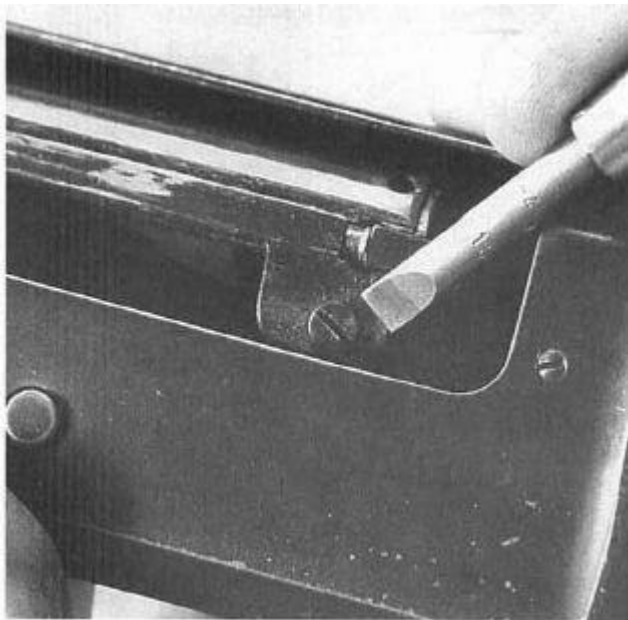


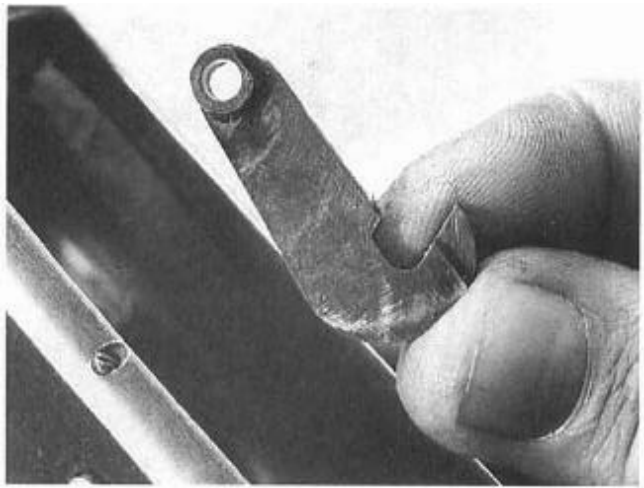
**10.** The trigger and its spring are easily removed from the top of the guard. There is also a trigger stop screw at the rear inside the guard, and it is easily backed out. If this is done, though, it will have to be readjusted during reassembly.



**11.** Remove the screw on the right

side of the bolt, just below the  
extractor.





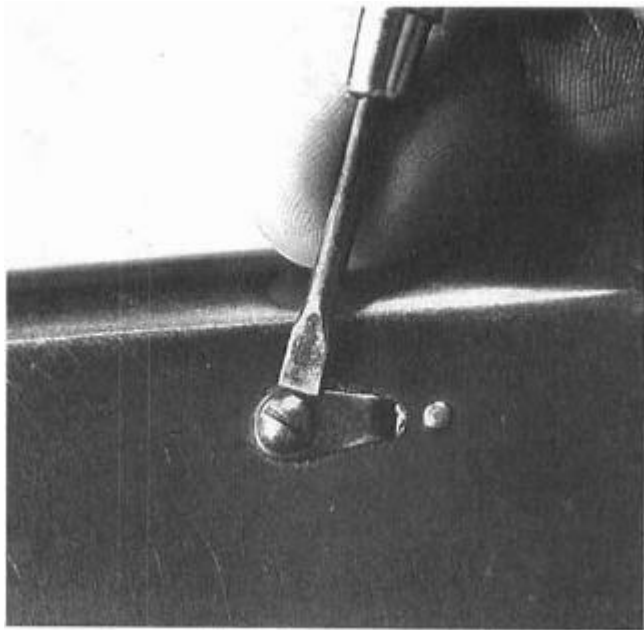
- 12.** Insert a tool beneath the bolt, through the ejection port, and move the front of the slide hook downward, out of its recess on the left side of the bolt. Remove the hook from

the bottom of the receiver.



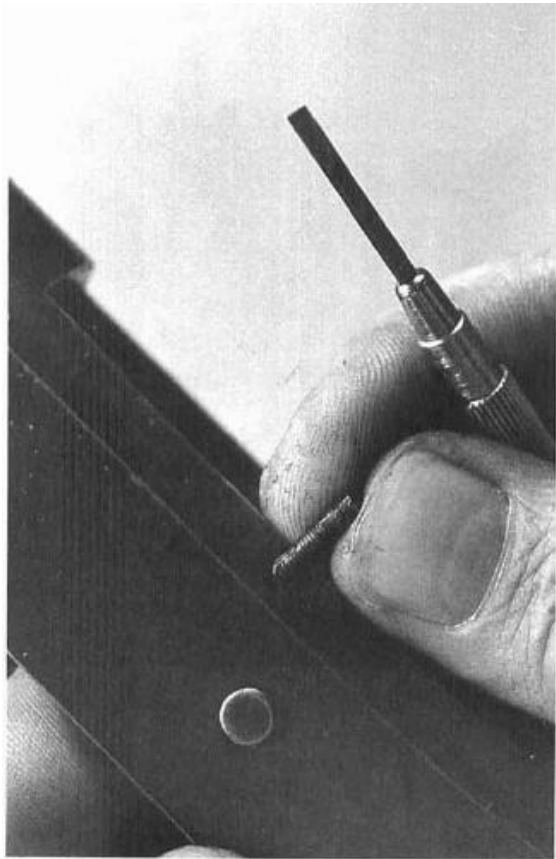


- 13.** Move the bolt all the way to the rear of the receiver, and lift it off upward.
  
- 14.** Remove the screw on the left side of the receiver near the top, and take off the ejector toward the left. Note that the ejector block is mounted on a short pin-like projection in the receiver wall, just to the rear of the ejector opening, and if it has to be removed, it is drifted inward.



**15.** The right and left shell stops are retained on the inside of the receiver by vertical pivot

screws in the lower edge of the receiver on each side. Back out the screws, and take off the shell stops inward.

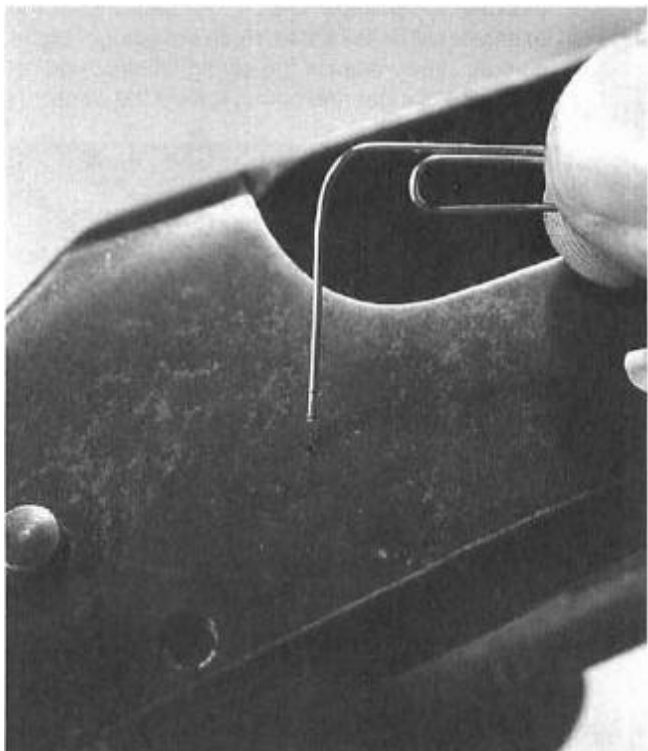




**16.** The shell stop springs are mounted in slots on the inside of each shell stop, and are easily driven out if necessary for repair.

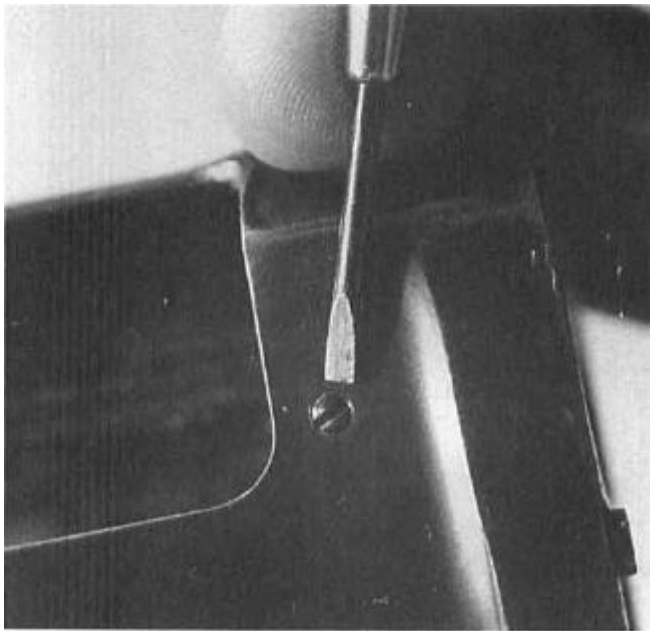
**17.** The carrier release button is retained inside the receiver by a round-wire spring that is keyed into a tiny hole in the receiver wall. Use a tool of very small diameter to push the tip of the spring inward, then use sharp-nosed pliers inside the receiver to move the spring forward, releasing the

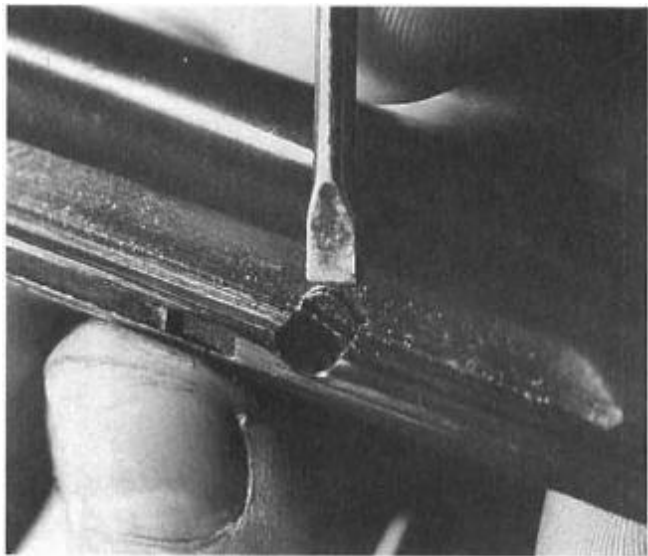
button for removal.



**18.** The two tiny screws on each side at the front of the receiver retain the barrel chamber ring. After the screws are removed, the ring is taken out toward the front. The larger screw on the front of the receiver is the extension stop screw, and holds no part.



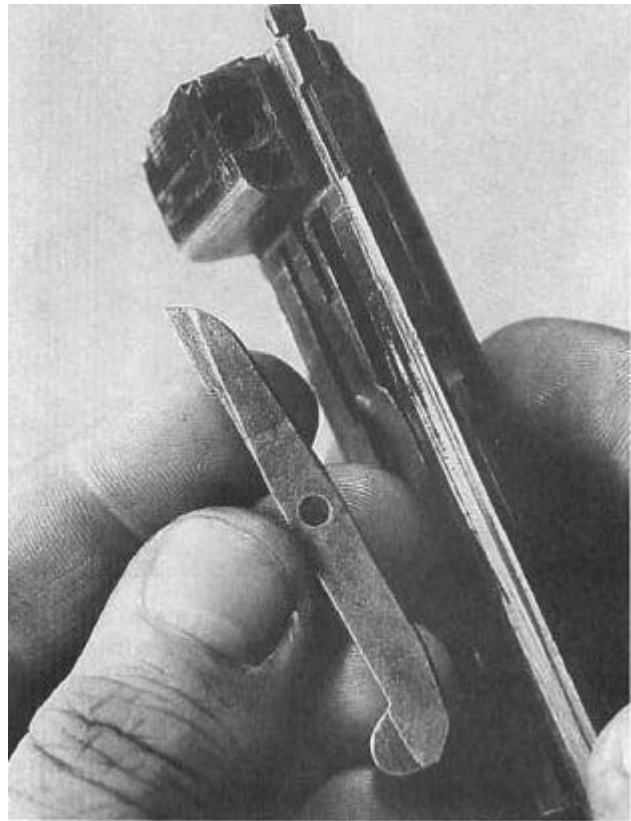




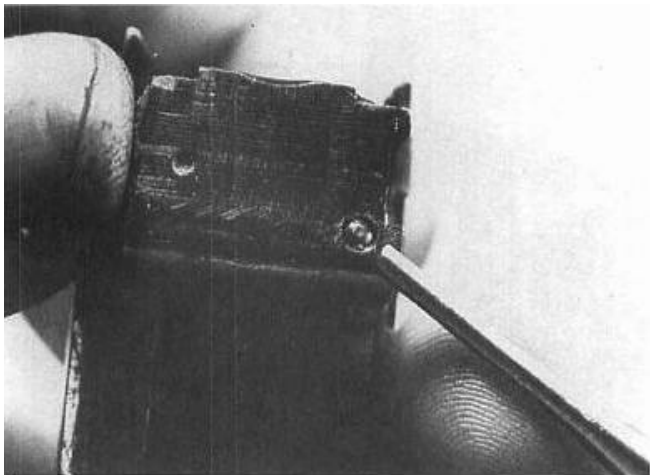
- 19.** Drift out the cross pin at the rear of the bolt toward the left, and remove the firing pin toward the rear. Remove the screw on the left side at the

center of the bolt.

- 20.** Remove the firing pin retractor downward, and take out its small coil spring from the underside of the bolt.

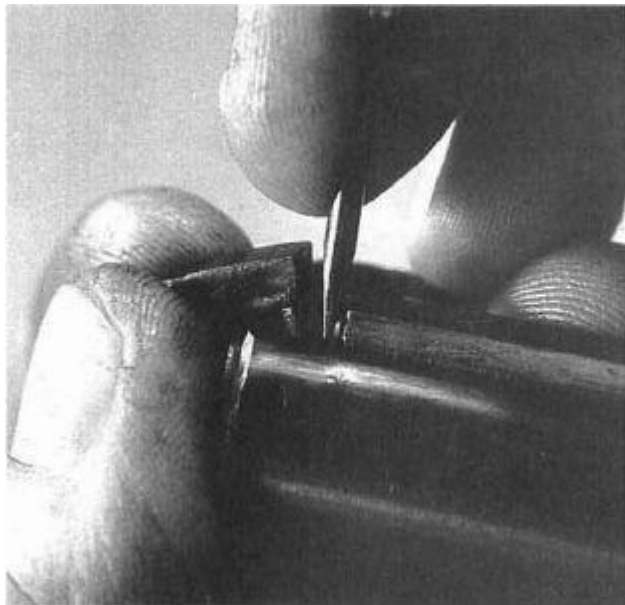


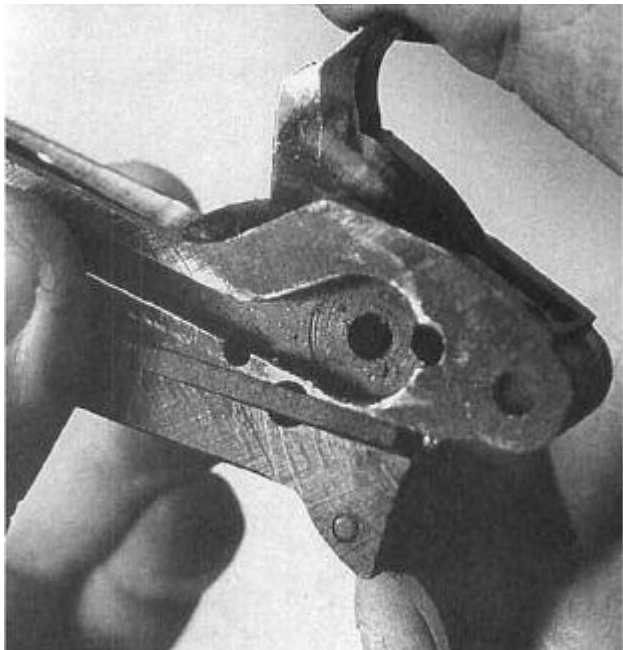
**21** . The left extractor, which is tempered to be its own spring, is retained by a vertical pin which is driven upward.



**22.** The right extractor is removed

by inserting a small screwdriver between the extractor and its plunger. Depress the plunger toward the rear, and tilt the extractor out of its recess. Keep the plunger under control, slowly release the spring tension, and remove the plunger and spring toward the front.



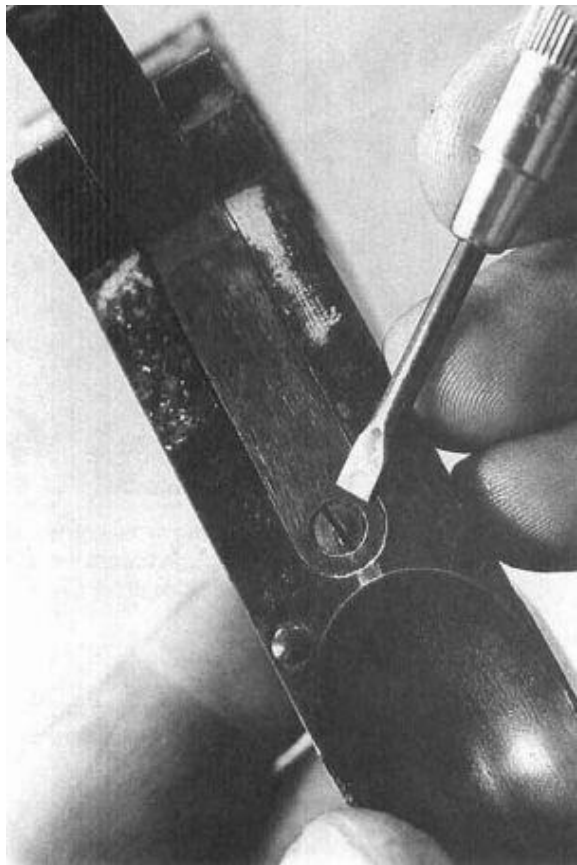


**23.** Restrain the hammer, and press the tail of the sear upward to release the hammer.



Ease the hammer down to its full forward position

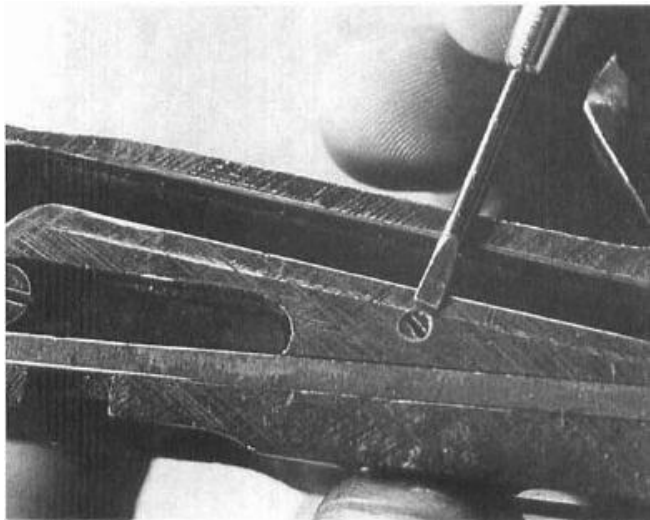
- 24.** Remove the sear spring screw on the underside of the carrier, and take off the spring downward.

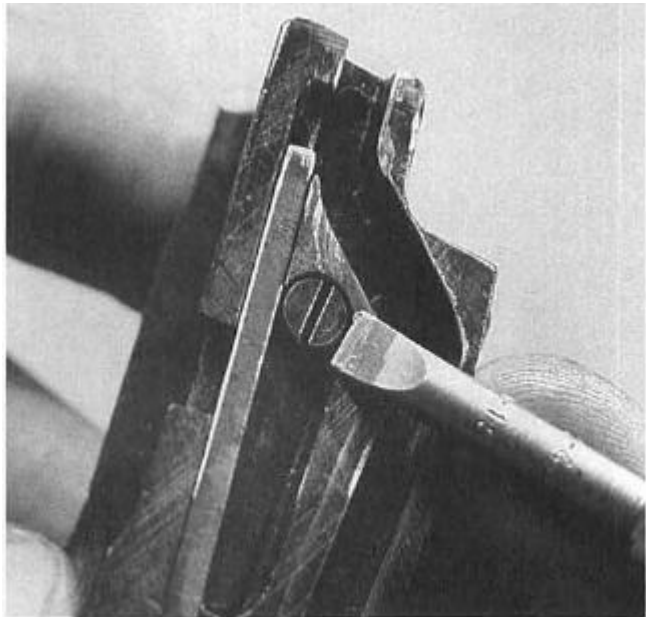


**25.** Drift out the sear pin, and remove the sear.



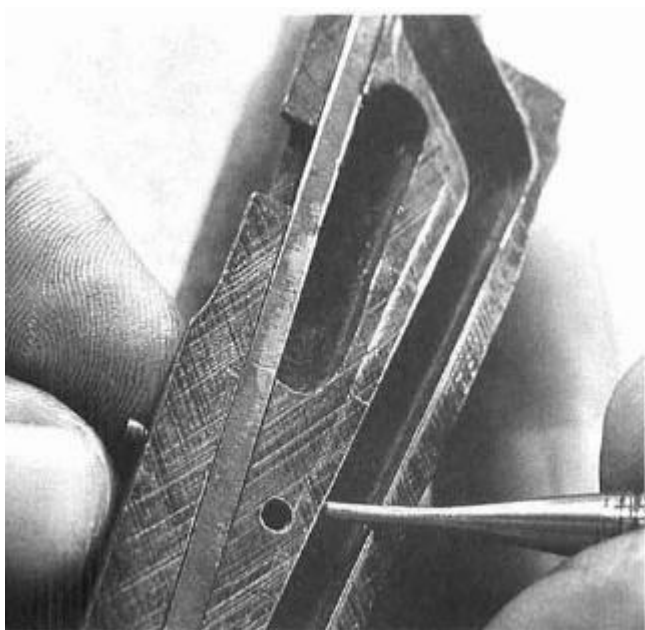
**26.** Remove the slide latch pivot pin retaining screw.





**27.** Remove the slide latch spring retaining screw, and eke off the latch spring, detaching its

tab from be-hind the latch bar.



**28.** Insert a slim drift in the access

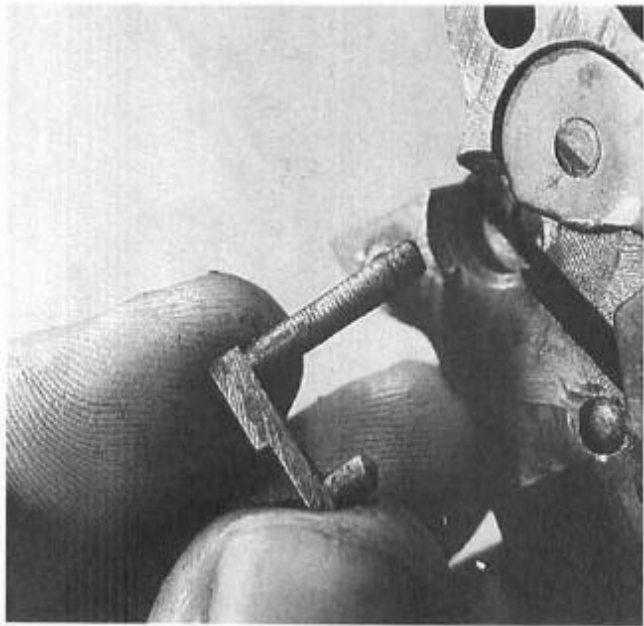
hole in the lower edge of the action slide track, and push out and remove the slide latch pivot downward. As the pin emerges, it can be grasped and pulled out.

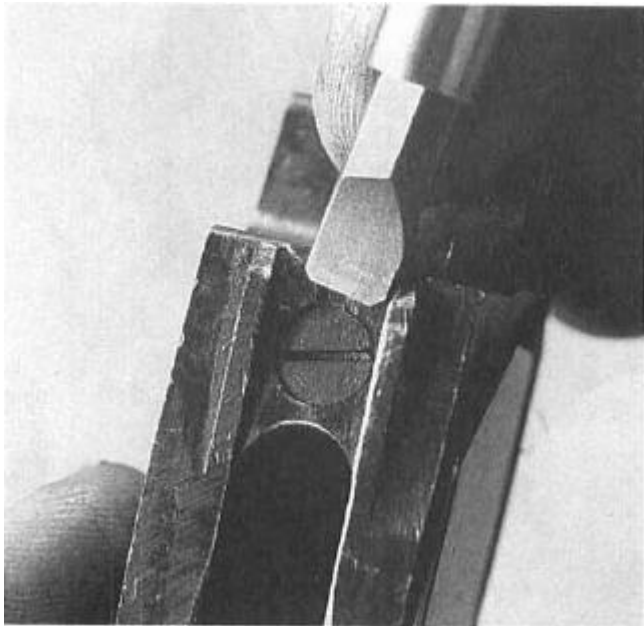




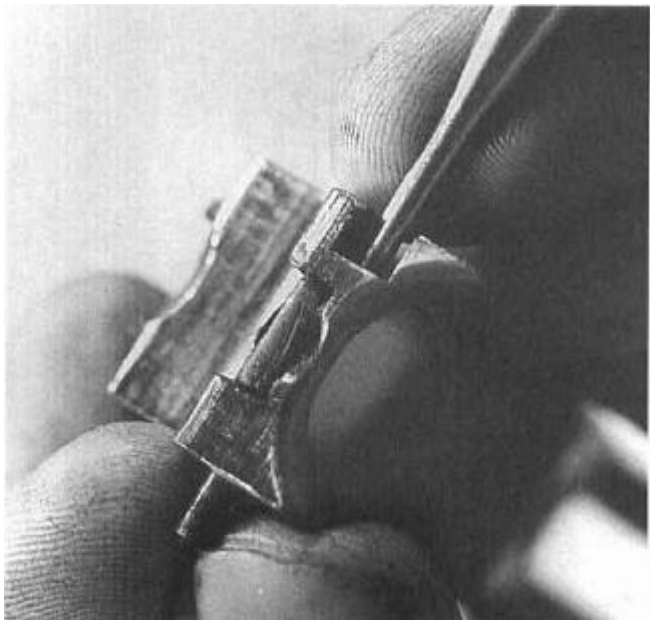
**29.** Remove the slide latch toward the left.

**30.** Swing the shell guide plate upward, and remove the slide latch release plunger toward the right.



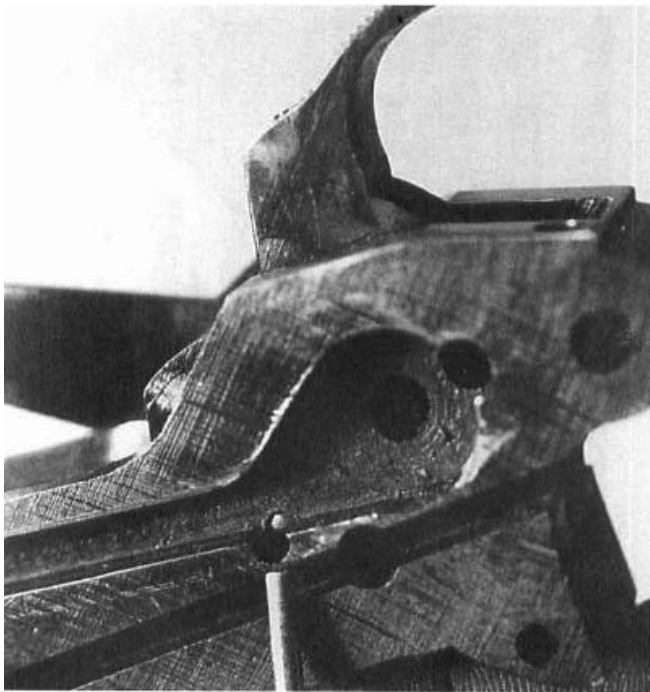


**31.** Remove the hammer spring tension screw.



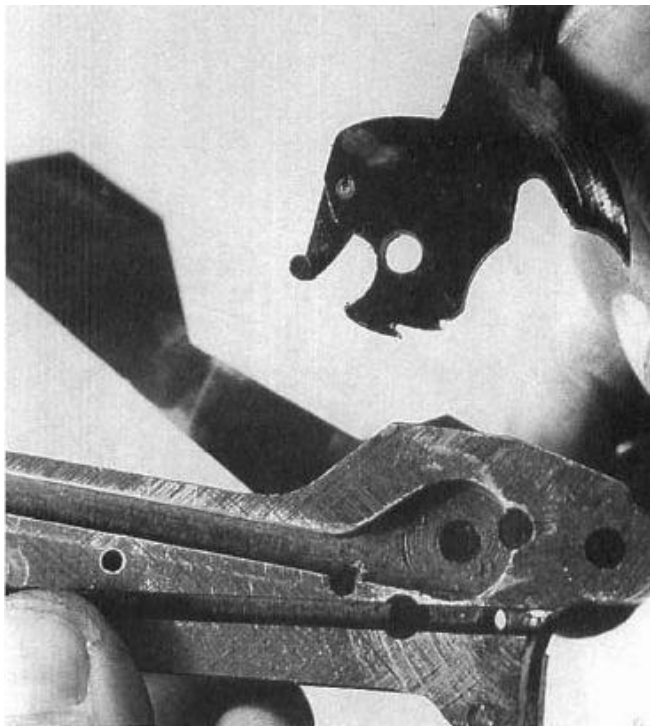
**32.** Drift out the hammer spring pin toward the right.

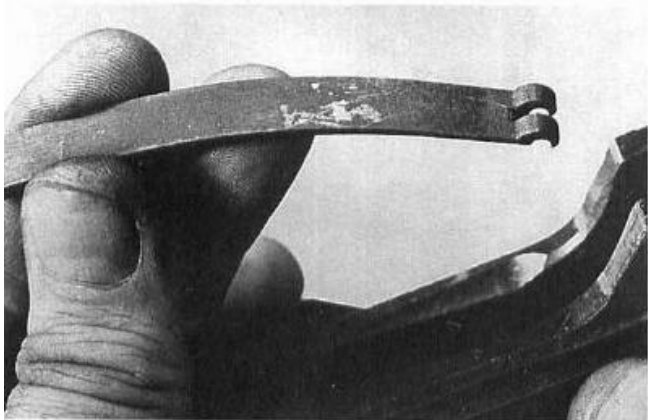
**33.** Be sure the shell guide plate is still swung up out of the way, and drift out the hammer pivot pin toward the right.



**34.** Remove the hammer upward.  
The hammer stirrup cross pin

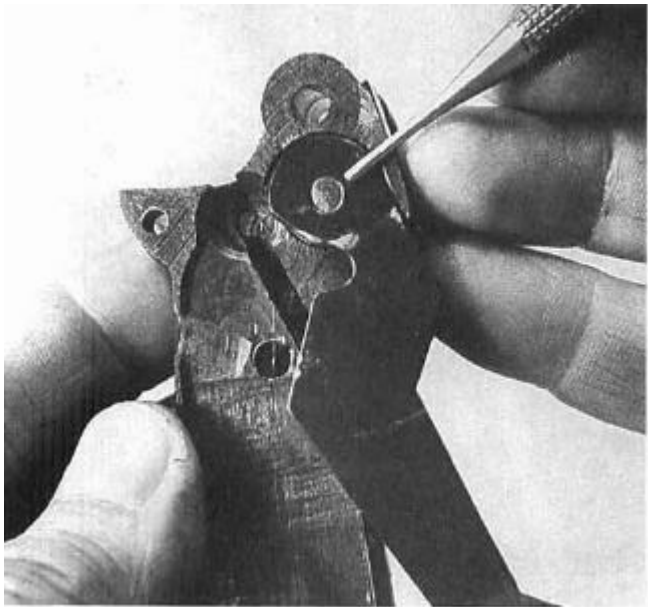
should be removed only for repair purposes.





**35.** Nudge the hammer spring toward the rear. When it has cleared the front bridge of the carrier, the spring can be removed upward.

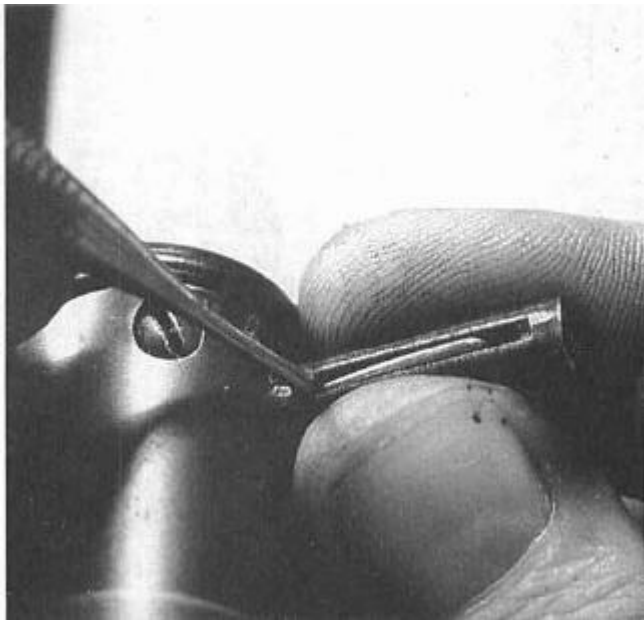




**36.** The shell guide plate is riveted in place on the carrier, and removal is not recommended in normal takedown. If

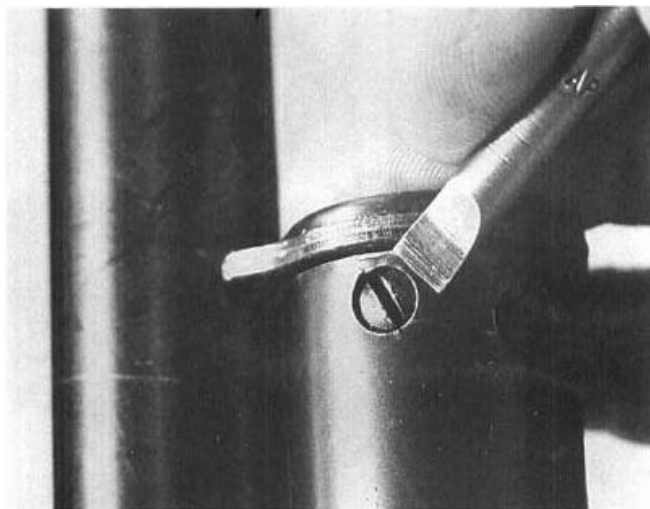
necessary for repair, it can be taken off, but a new pivot-rivet will likely have to be made.

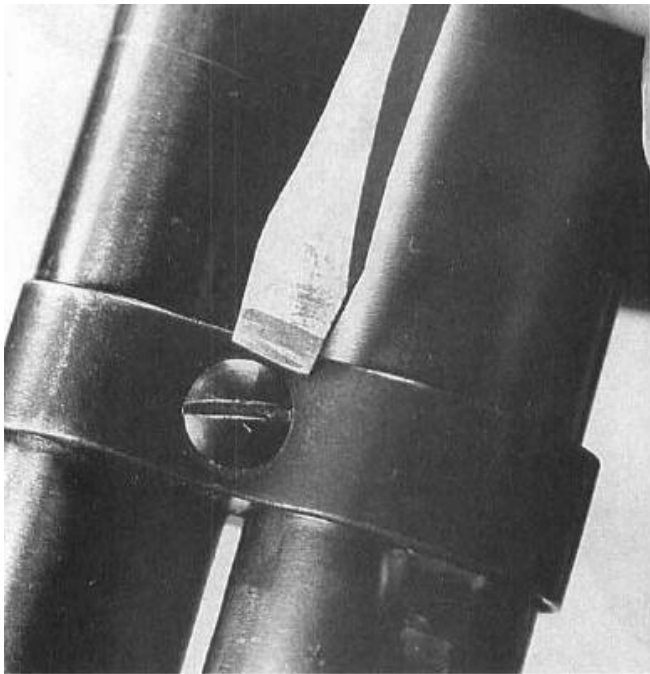
- 37.** To remove the magazine lock pin, depress the round-wire spring in the slot in its side, and pull out the pin.



**38.** Remove the two opposed screws at the front of the magazine tube, and take out the plug and plug stop ring toward

the front. Caution: The magazine spring will be released, so control it and ease it out. Remove the spring and follower toward the front.





**39.** Remove the screws on each side of the magazine hanger,

and move the hanger off toward the front. When the hanger is removed, the screw bushing at its center can be taken out. The action slide and magazine assembly can now be removed toward the front.



**40.** Use a Brownells Model 12 forend wrench to remove the forend cap nut, and take out the magazine tube toward the front. The buffer spring can be slid off the magazine tube toward the rear. The action slide can now be removed from the forend toward the rear.

**41.** Barrel tightness in the receiver is adjustable by backing out the adjusting sleeve lock screw and sliding the lock piece out of engagement with

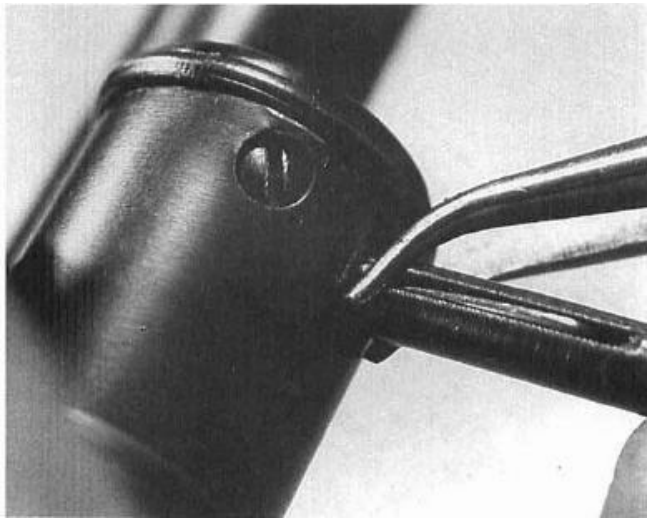


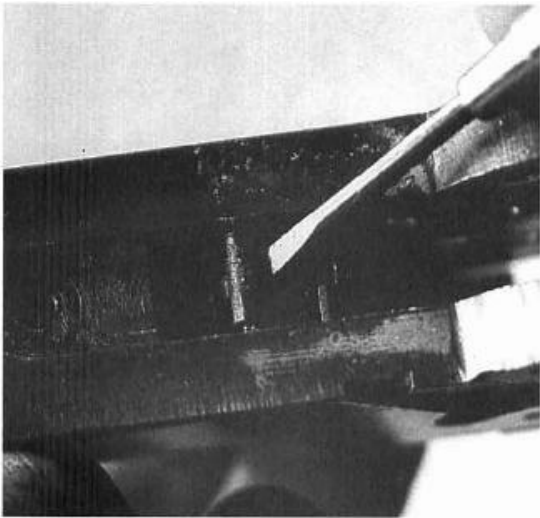
the teeth on the edge of the sleeve. Turning the sleeve clockwise (rearview) will tighten the barrel engagement. If necessary, the screw, sleeve, and lock piece can be removed.



# Reassembly Tips:

1. When replacing the magazine lock pin, use pliers to squeeze the tip of its spring inward to make reinsertion easier.





2. When replacing the hammer, insert a tool on the underside of the carrier to tip the stirrup into engagement with the hooks on the hammer spring

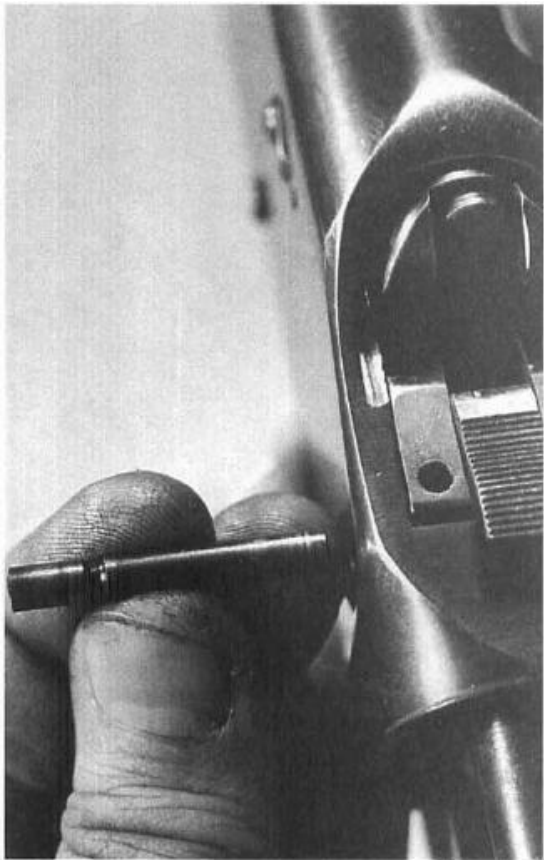
before tightening the spring tension screw.

- 3.** When replacing the trigger assembly, it will be necessary **b** use a slave pin to hold the trigger and its spring in place while the guard unit is slid back into the receiver. The assembly is shown with the parts and slave pin in place, ready to be installed.



4. When replacing the carrier cross pin, remember that the groove in the pin must be on the left side, to contact the retaining screw.





# Winchester Model

101



**Data:** Winchester Model  
101

**Origin:** Japan

**Manufacturer:** Olin Kodensha  
Co., Ltd., for  
Winchester, New  
Haven,  
Connecticut

**Gauges:** 12,20,28, and 410

**Overall  
length:** 47 inches (with  
30-inch barrels)

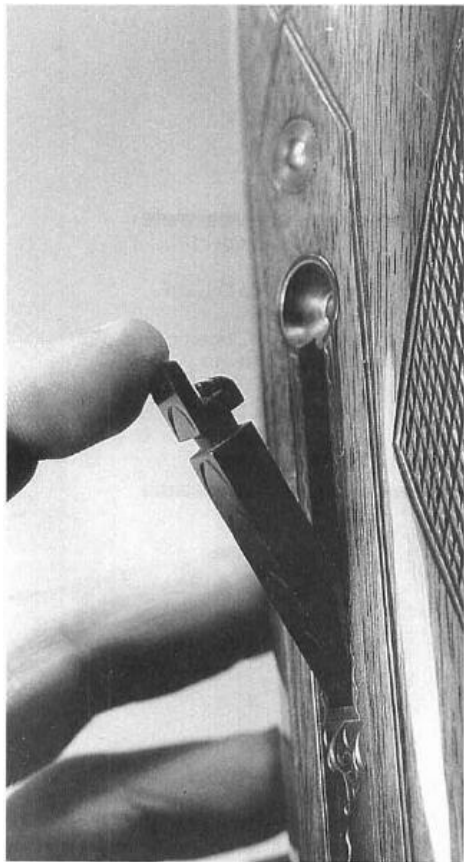
**Barrel length:** 26 to 32 inches

**Weight:** 6-1/4 to 7-3/4  
pounds

Winchester's first over/under shotgun was introduced in 1963, initially in 12-gauge only. By 1966, it was also available in 20- and 28-gauge and 410-bore, and in a wide variety of styles and options. There is even a version with an accessory single barrel unit for the trapshooter. The Model 101 was discontinued in 1987. Mechanically, the Model 101 is no more complicated than any other over/under design, but with all guns of this type the amateur should proceed with caution.

# Disassembly:

1. Open and close the action to cock the internal hammers. Operate the forend latch, and swing the latch bar outward. Tip the forward end of the forend away from the barrels, and remove the forend downward and toward the front.



2. Operate the barrel latch, tip the barrels down beyond their normal open position, and remove the barrels upward.





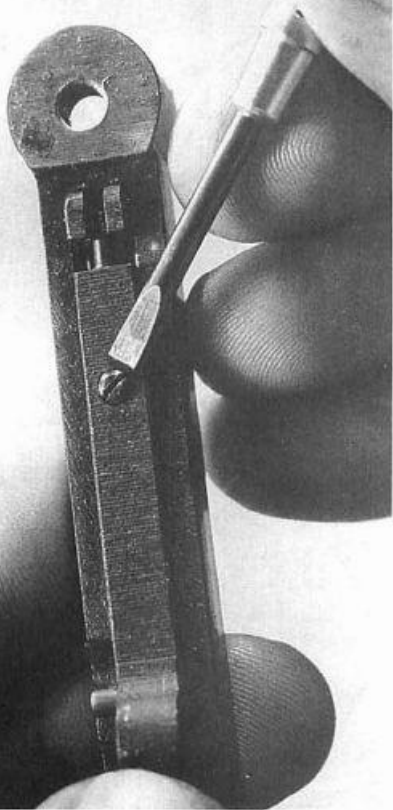
3. Remove the three vertical screws on the inside of the forend, tip the forend iron

upward at the front, and  
remove it toward the rear.





4. Use a nylon punch from the inside to nudge the forend latch housing downward for removal. Tap it equally at each end, to avoid chipping the recess.
  
5. The forend latch bar is cross pinned to its housing. Backing out the small screw on the inside of the lever will release the lever catch plunger and its spring for removal.





6. Trip the ejector sears downward, allowing the ejector hammers to move toward the rear. Grip the rear neck of each spring guide with sharp-nosed pliers, and move the guide tips out of the recesses on the backs of the hammers. Caution: Even at rest, these springs have considerable tension, so control them and ease them off.

7. A single cross pin retains both ejector hammers, and the pin

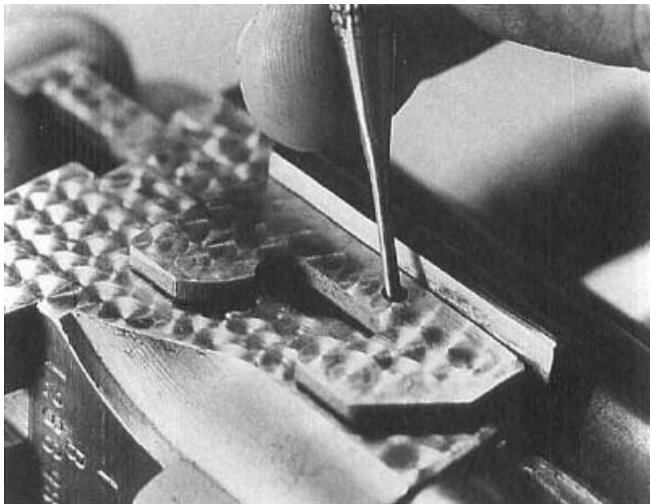
is drifted out toward the right. The ejector hammer sears and their springs are retained by cross pins at the upper rear of the forend base, and these pins are contoured and finished with the outside of the base piece. Unless absolutely necessary for repair, these should not be removed.

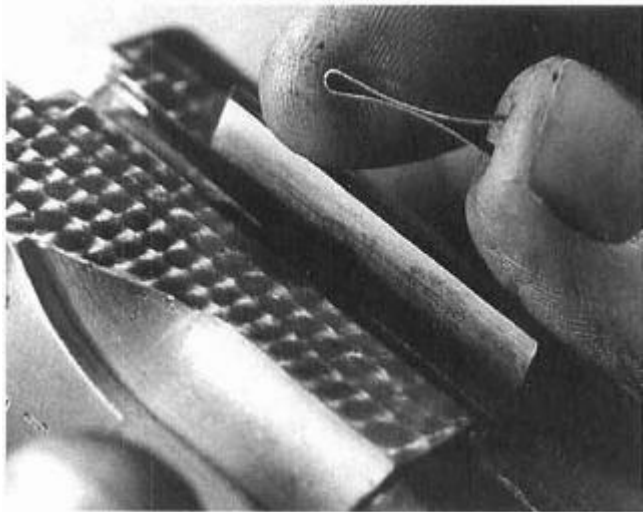




8. To remove the ejectors, slide each one to the rear, and insert a tool into the hole in each ejector to depress the retaining

spring. The ejectors can then be slid off toward the rear.





9. After the ejectors are removed, be sure to take out the retaining springs from their recesses on each side, as they will be completely freed when the ejectors are taken off, and

might fall and be lost.

- 10.** Insert a finger or tool in the front of the receiver and depress the barrel latch lever detent, allowing the latch lever to return to center. Leave the safety in the on-safe position. Back out and remove the screw in the rear tail of the trigger guard.

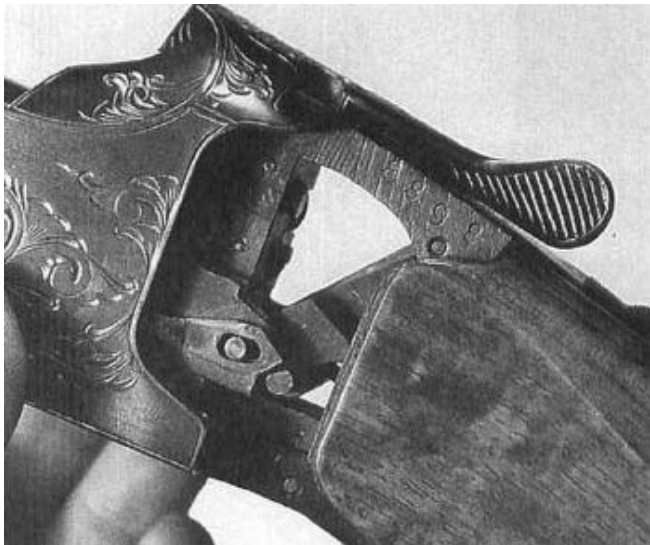


- 11.** Lift the tail of the guard from its recess in the stock, turn the guard straight out toward either side, and remove the guard from the bottom of the receiver.



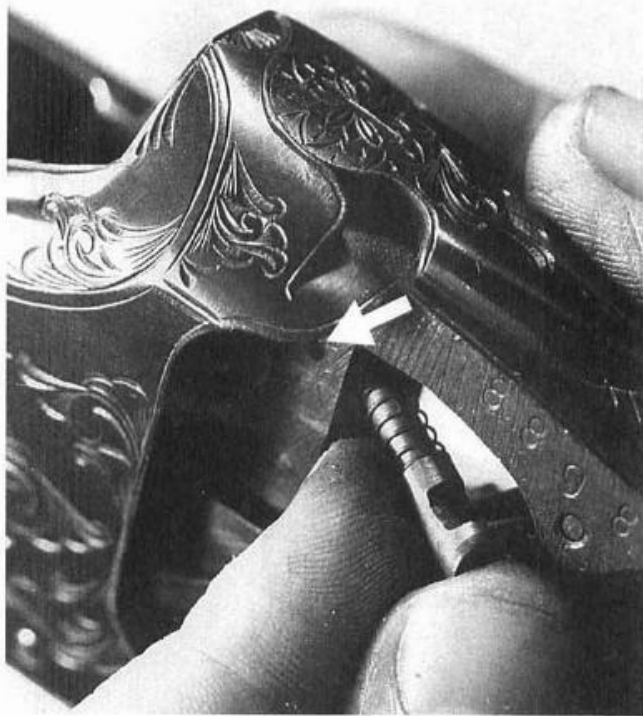
**12.** Remove the buttplate, and use a B-Square stock tool or a long-shanked screwdriver to take out the stock bolt and its washers. Take off the buttstock toward the rear.





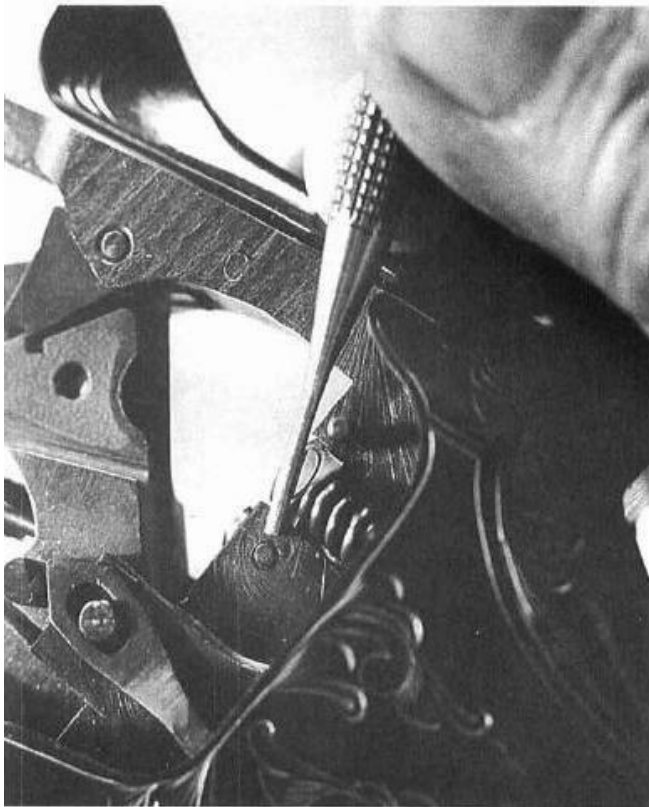
- 13.** Drift out the upper firing pin retaining pin (arrow) toward the right, and remove the upper firing pin and its spring leftward and toward the rear.



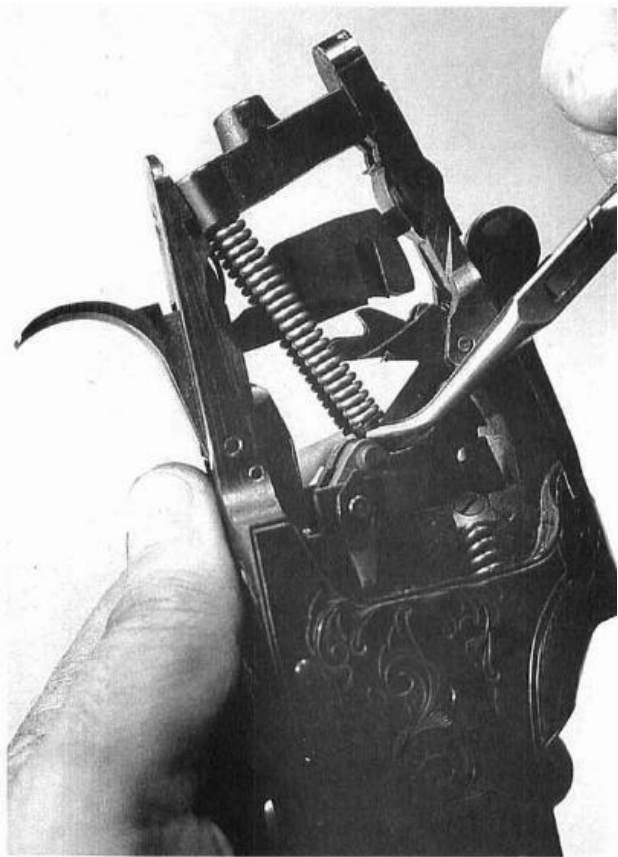


**14.** Drift out the lower firing pin

retaining pin toward the left,  
and remove the lower firing  
pin upward and toward the  
rear, along with its spring.



**15.** Move the safety to the off -safe position and pull the trigger to drop each hammer to the fired position. Grip the forward tip of the hammer spring guide on each side with sharp-nosed pliers, moving the guide tip out of its recess on the back of each hammer. Caution: These springs are under tension, even when at rest, so control them and ease them off.

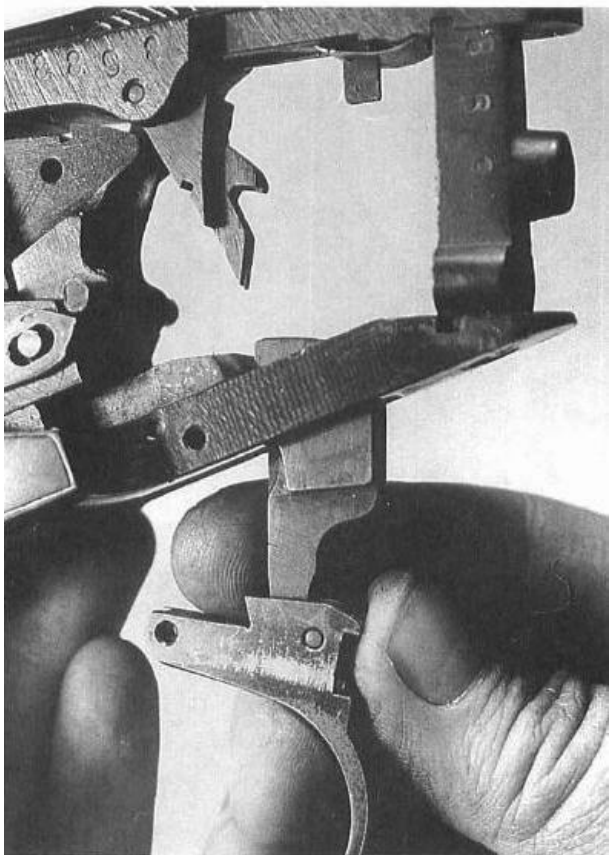




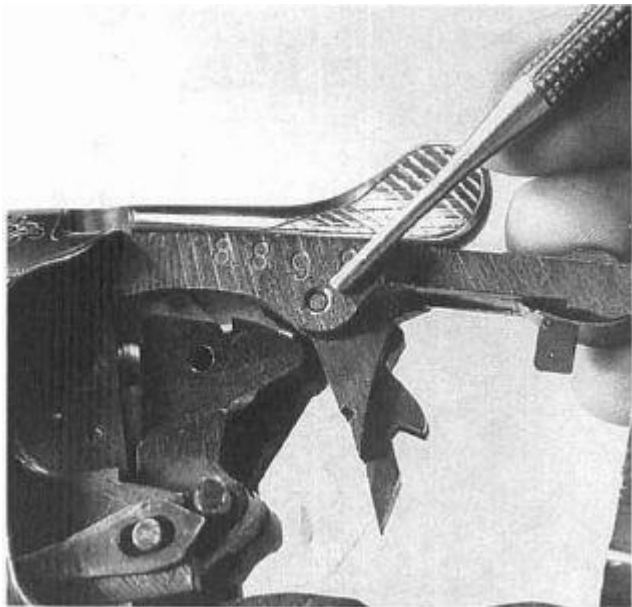


**16.** Drift out the trigger cross pin.

**17.** Move the trigger forward, then downward, moving the trigger and inertia block assembly out the bot-of the receiver. Drifting out the cross pin in the trigger will allow removal of the inertia block, plunger, and spring from the trigger. Caution: The spring is under tension, so ease it out.



**18.** move the sears and their springs downward. Restrain Drift out the cross pin that retains the sears, and re-tom the sears during removal of the pin, as the springs are under tension. The upper end of the sear and hammer spacer will be freed as the pin is removed.



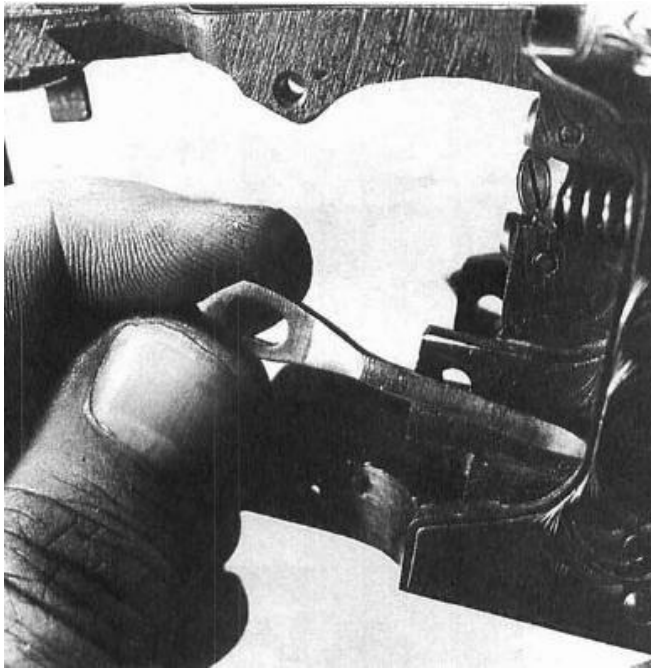
**19.** Taking care not to damage the rear tips of the ejector trip rods, drift out the cross pin that retains both hammers.

Remove the hammers, and the hammer and sear spacer, toward the rear.



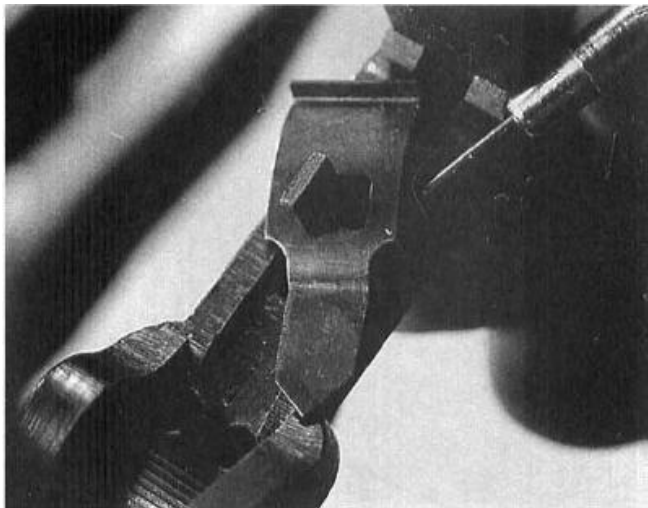
**20.** Remove the ejector trip rods

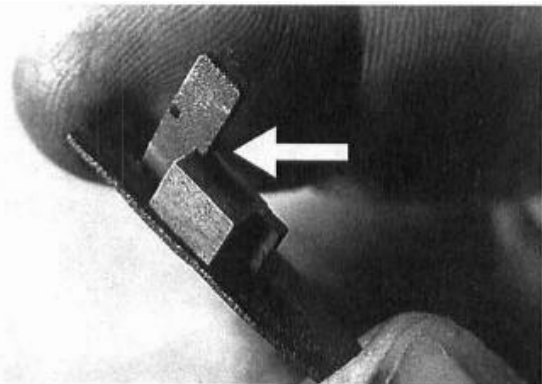
toward the rear, and keep them separated, as they are not inter-changeable.



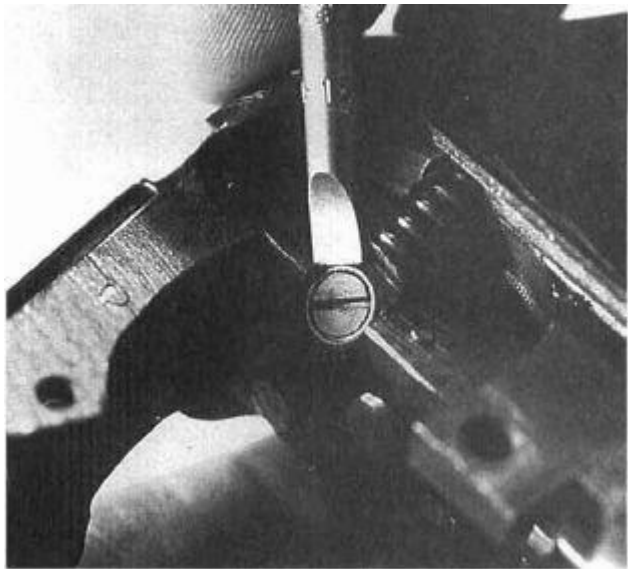
**21** . Insert a small screwdriver from the rear to lift the front of the safety spring out of its recess, and turn the spring out toward the side. Remove the spring downward, and take off the safety button upward.





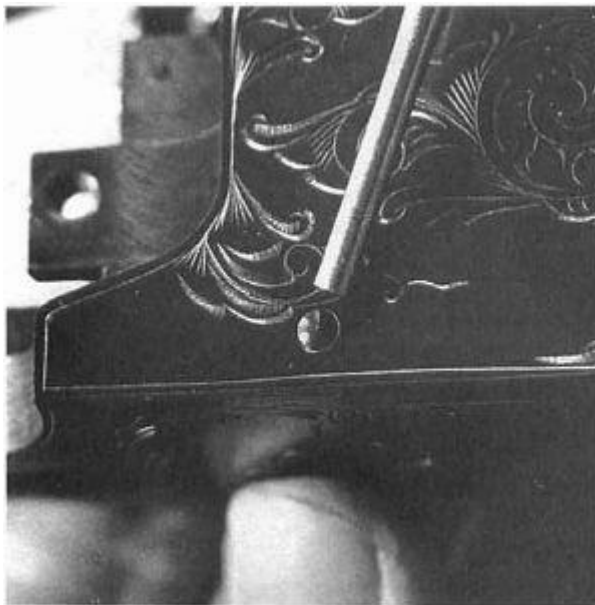


**22.** When the safety button is removed, take care that the small filler block (arrow), located between the extensions of the button, is not lost.



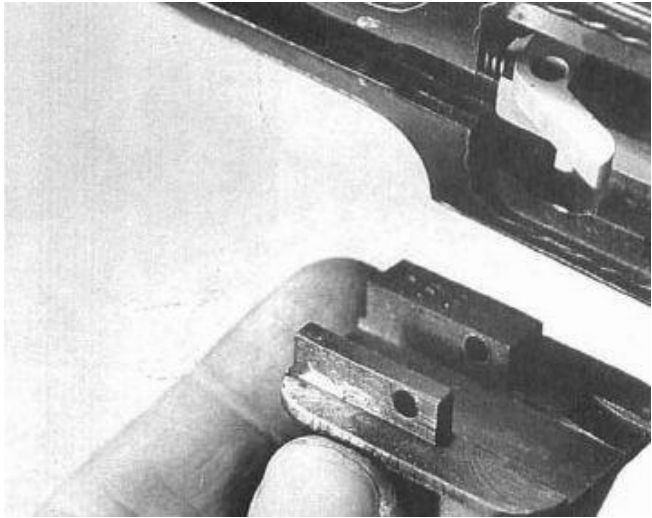
- 23.** Remove the screw that retains the barrel latch lever spring base, and take off the base and spring to-lower ward the rear.

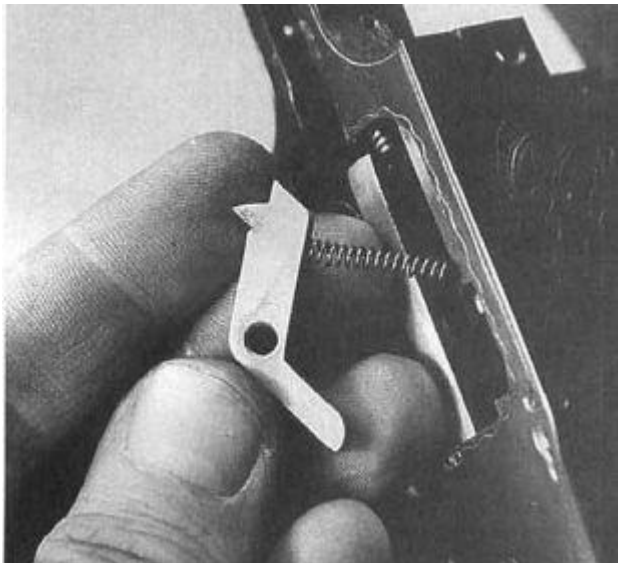
**24.** Drift out the bottom frame plate pin.



**25.** Insert a drift punch from the

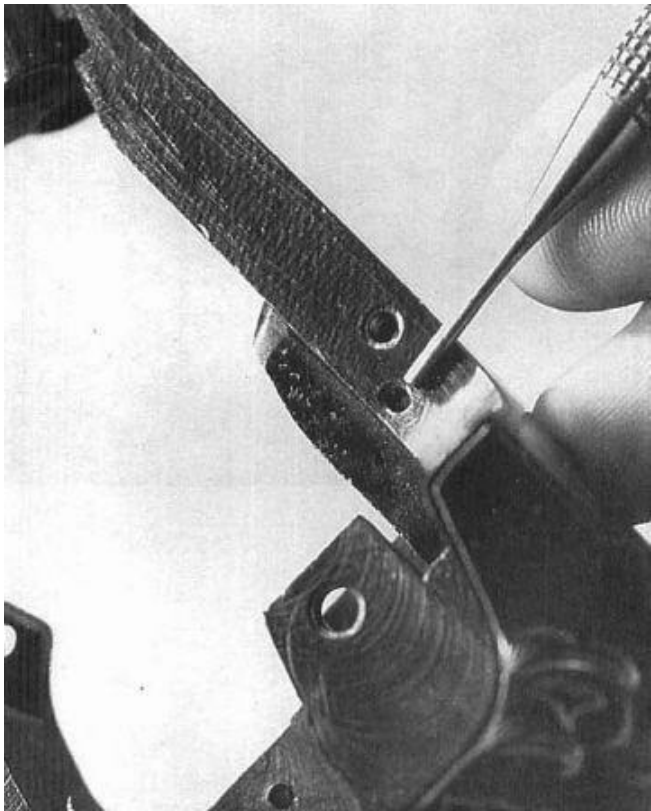
top, in front of the breech face,  
and tap the bottom plate free.





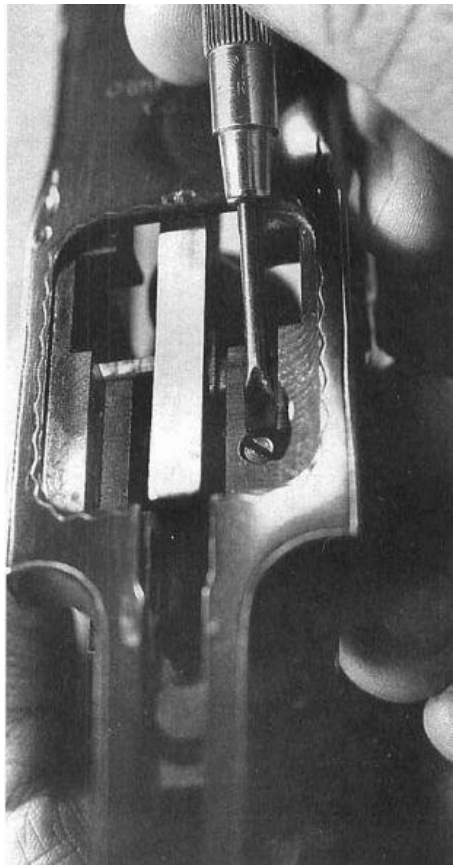
**26.** Move the barrel latch lever detent forward, then re- move it downward, along with its spring.

**27.** Drift out the cross pin that is the rear base for the cocking slide spring, and remove the spring and guide toward the rear.

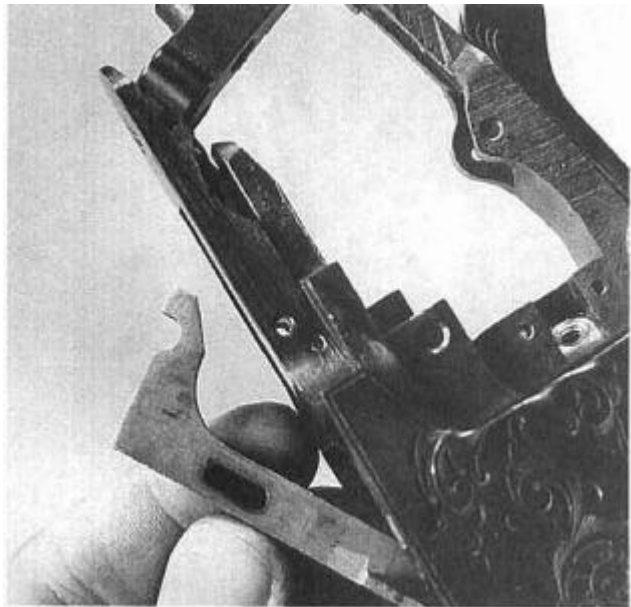


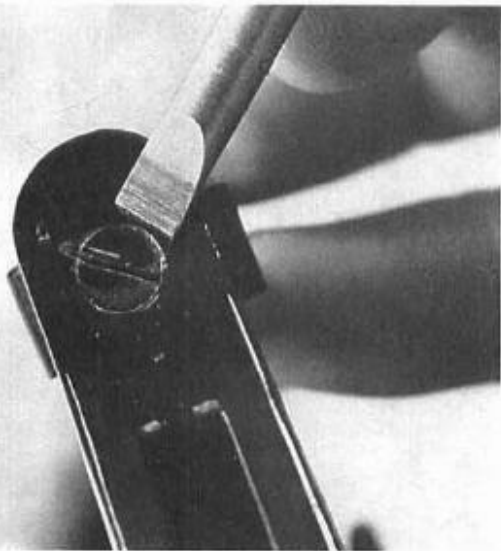


**28.** Unscrew and remove the pinion screw from the underside of the barrel latch block.



**29.** Move the barrel latch block to the rear, stopping it short of contact with the trigger spring. The block may be tight as it is moved out of its normal position, and may need to be nudged with a non-marring drift punch. When the block is moved back, the cocking slide can be moved toward the rear, tilted downward, and taken out the bottom of the receiver.





**30.** Removal of the barrel locking block will require that the tang spacer, the heavy vertical piece at the rear of the receiver, must be taken out.

Remove the screws at the top and bottom of the spacer, and use a nylon drift and hammer to tap it out of its grooves toward the side. When the spacer is taken out, the trigger spring will be released for removal at the bottom, and the barrel locking block can then be moved out toward the rear.

- 31.** Remove the screw at the top of the barrel latch lever, and insert a drift to nudge the latch lever post downward. Remove the post from the bottom of the receiver, and

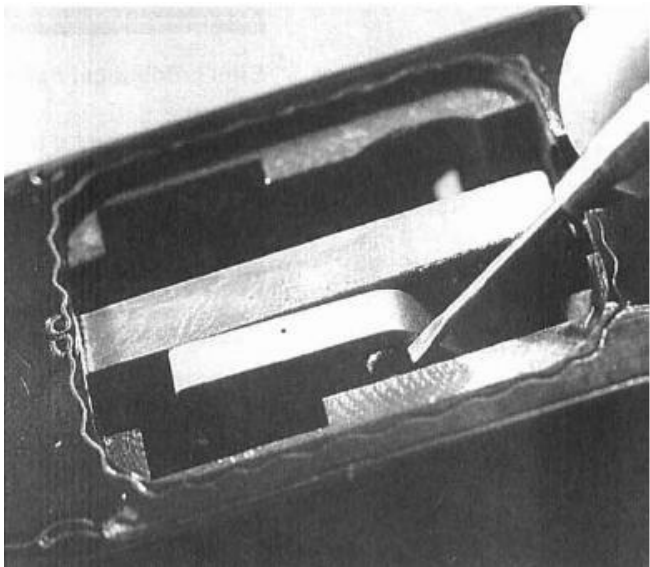
take off the latch lever upward. Note that these parts are very tightly fitted, and if their removal is not necessary for repair or refinishing, it's best to leave them in place.





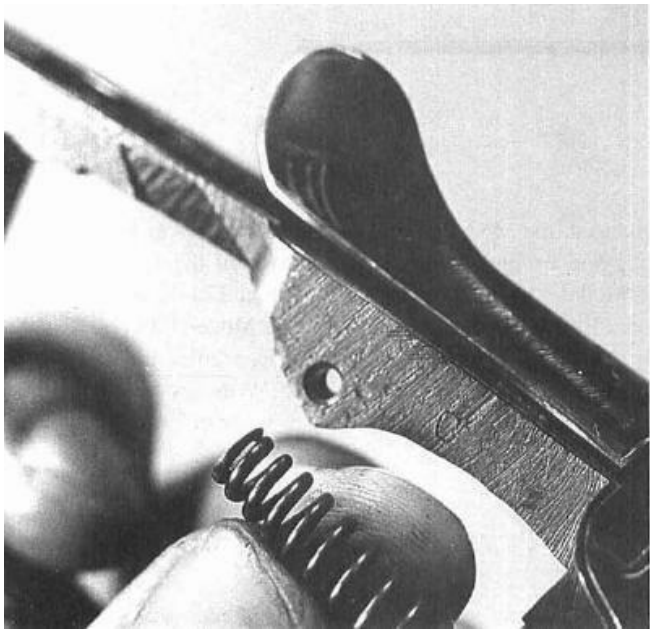
# Reassembly Tips:

1. When replacing the barrel latch lever detent and its spring, be sure the spring enters its recess in the receiver, and use a short slave pin, as shown, to hold the lever in place while the bottom plate is reinstalled.



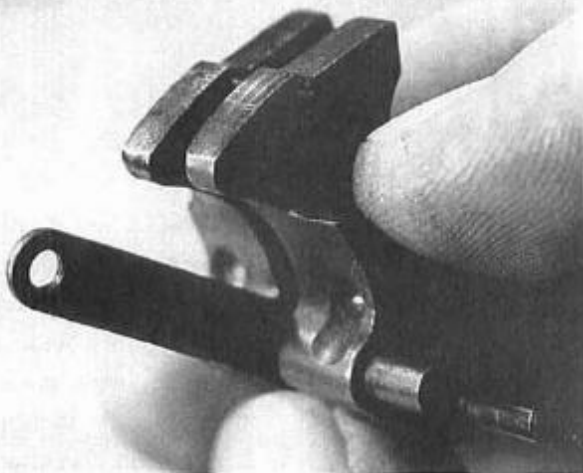
2. Note that the barrel latch spring is cone-shaped. The larger end goes into the hole, and the smaller end contacts the stud on the spring base. When

replacing the base screw, be sure the spring is all the way into its well, and take care that the screw enters its hole at the proper angle, and is not cross-threaded.



3. The spacer plate that goes between the hammers and sears has a hole at each end,

and the holes are of unequal size. The smaller hole is for the sear pin, the larger one, at the bottom, for the hammer pin. When installing the hammers and the sears, be sure the holes in the spacer plate are aligned for passage of the cross pins.



When replacing the trigger and inertia block assembly, insert a tool at the rear to depress the trigger spring downward for clearance. When the trigger is installed, be sure the spring

lies on top of the trigger at the rear.

# **Winchester Model**

**1200**





## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Winchester Model 1200 also apply to the following guns:

**Sears Model 200**

**Sears "Ranger" Youth**

**Winchester Model 1300**

**Sears "Ranger" Model 120**

**Sears "Ranger" Combo**

**Winchester Model 1300XTR**

<b>Data:</b>	Winchester Model 1200
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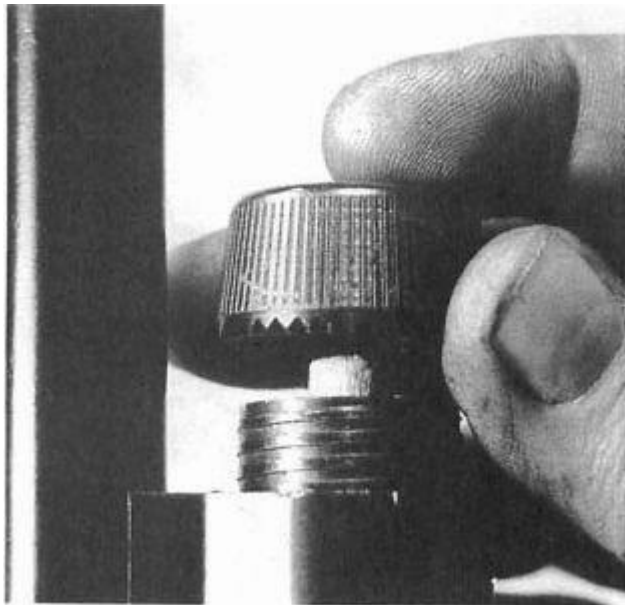
<b>Origin:</b>	United States Winchester
<b>Manufacturer:</b>	Repeating Arms New Haven, Connecticut
Gauges:	12, and 20
Magazine capacity:	4 rounds
Overall length:	49 inches (with 28-inch barrel)
Barrel lengths:	26 to 30 inches
Weight:	6-1/2

In 1964, when it was first introduced, the Model 1200 was

available in 12- and 16-gauge. The latter chambering was dropped before long- , in favor of the 20-gauge. Until the arrival of the Model 1300XTR in 1978, the Model 1200 was available in a wide range of barrel, choke, and stock options. The Model 1200 has also been made for Sears under their brand name, and those guns are mechanically identical, so the instructions will apply. In 1978, Winchester's designation was changed to Model 1300. The last Model 1200 was made in 1981.

# Disassembly:

1. Open the action, set the safety in the on-safe position, and unscrew the magazine end cap and remove it. Move the action slide slightly toward the front to give clearance inside the forend at the rear, and take off the barrel toward the front.



2. Close the action, and push out the cross pin at the lower rear of the receiver toward either side.

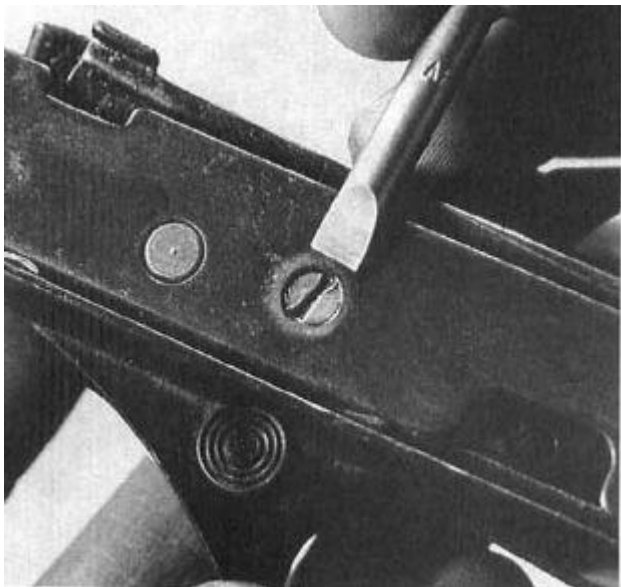






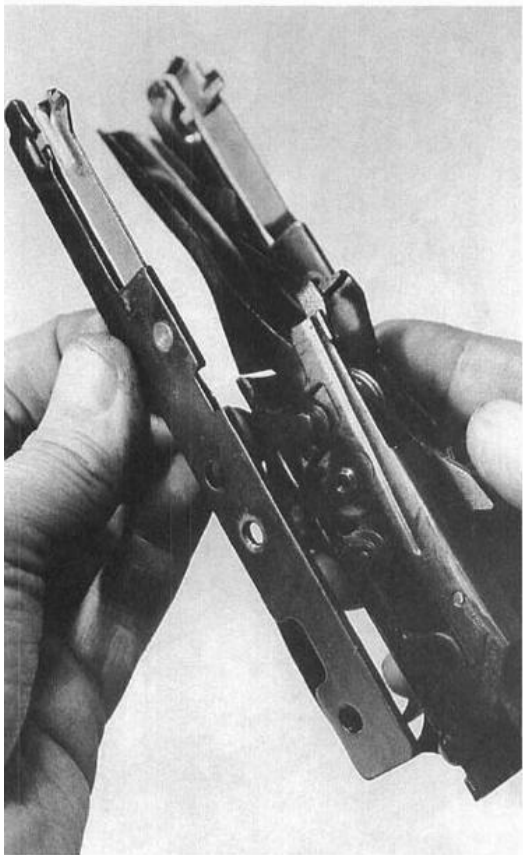


3. Tip the trigger housing downward at the rear, then remove it downward and toward the rear.

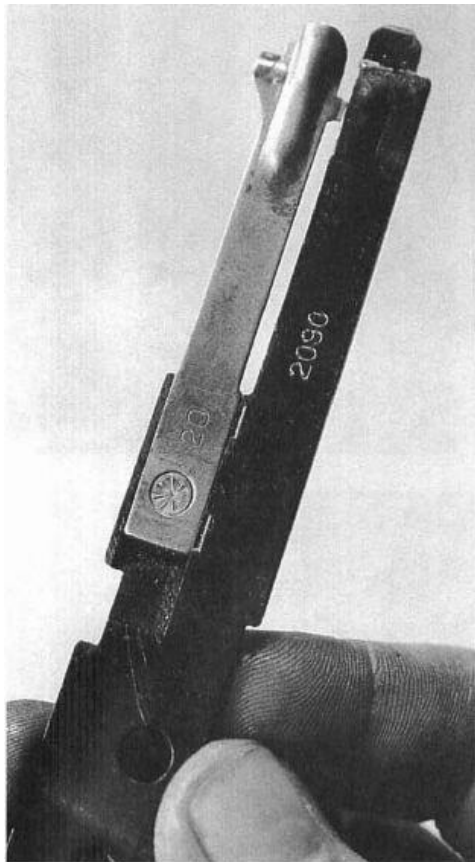


**4.** Remove the screw in the left sideplate of the trigger housing.

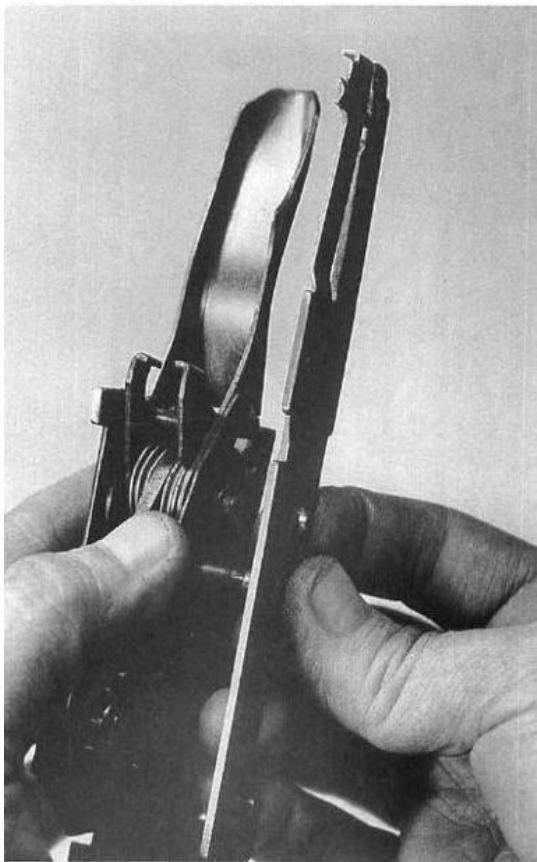
**5.** Remove the left sideplate toward the left.



- 6.** The left shell stop is heavily riveted on the front of the left sideplate, and is not intended for routine removal.



7. The carrier pivot is permanently attached to the right sideplate. Restrain the carrier, and take off the right sideplate toward the right. The right shell stop is also permanently attached to the right sideplate.





**8.** Slowly release the tension of the carrier spring, and remove the carrier upward and toward the front. Take out the carrier plunger and spring from the right side of the housing. The carrier dog is retained on the right rear wing of the carrier by a cross pin. If necessary for repair, the pin can be drifted out toward the right.



**9.** Move the safety to the off-safe position, restrain the hammer,

pull the trigger, and ease the hammer down to the fired position. Hold a thumb on top of the sear assembly to restrain it, and depress the front of the slide latch. Move the slide latch toward the left and allow it to swing upward, relieving the tension of its spring. Remove the slide latch and its spring toward the left.

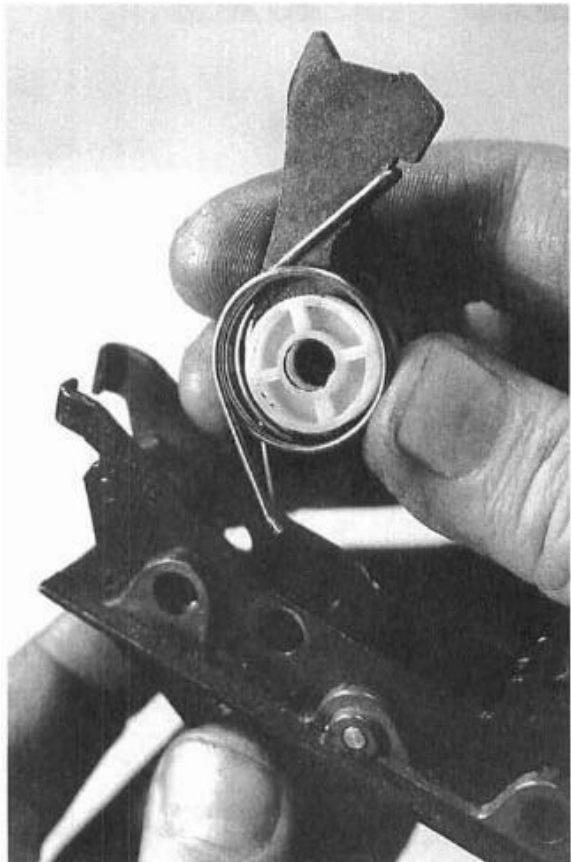




**10.** Release the sear assembly, and remove it upward. While it is possible to remove the sear and its spring from its bracket, this is difficult to do without damaging the bracket. Unless necessary for repair, it's best to leave it intact.

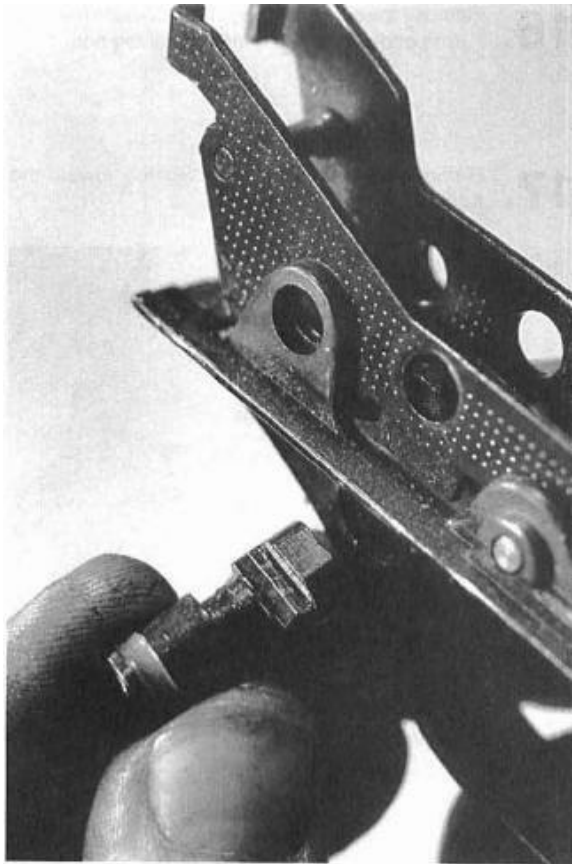
**11.** Restrain the hammer, and push out the hammer pivot toward the left.







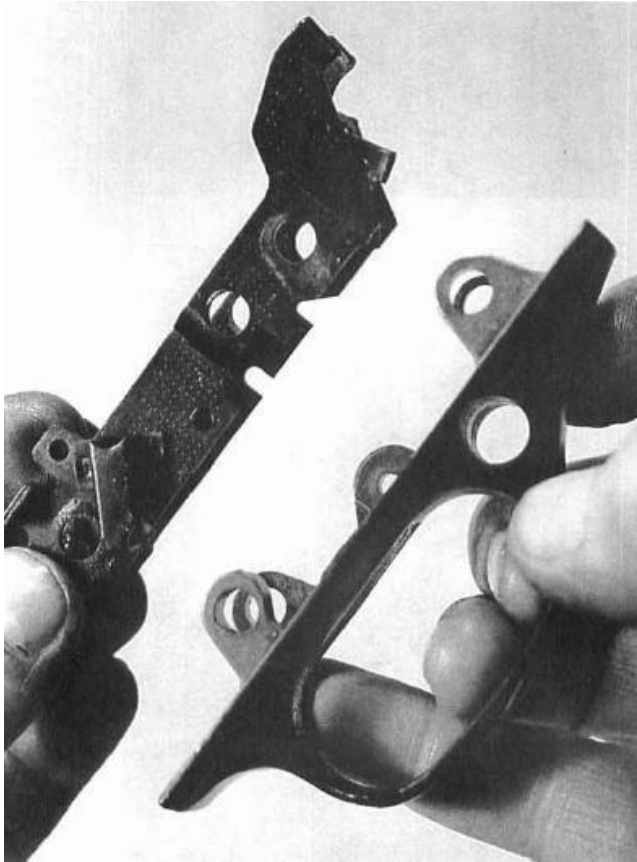
**12.** Move the hammer assembly forward, then take it off upward. The nylon hammer bushings and the hammer spring are easily detached from the hammer.



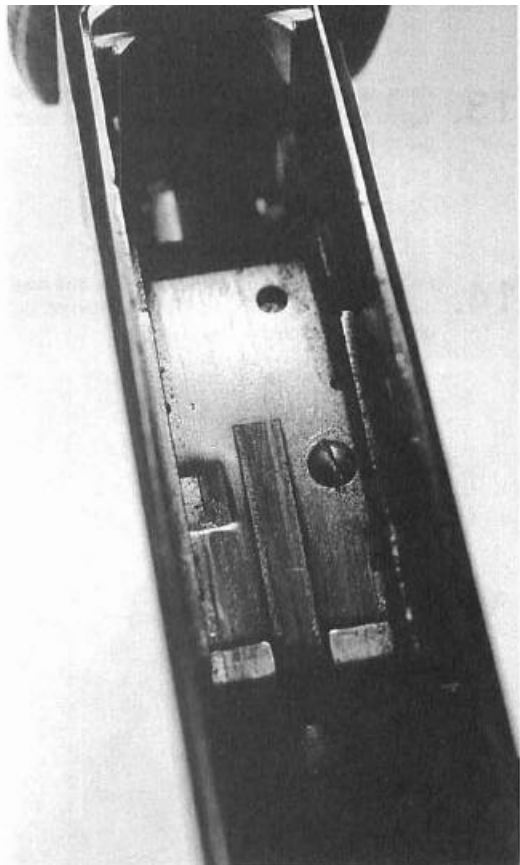
**13.** Removal of the hammer assembly will have released the safety button, and it can now be taken out toward either side.

**14.** Remove the trigger pin toward the left, and take out the trigger upward. The stud mounted on top of the trigger should not be disturbed.





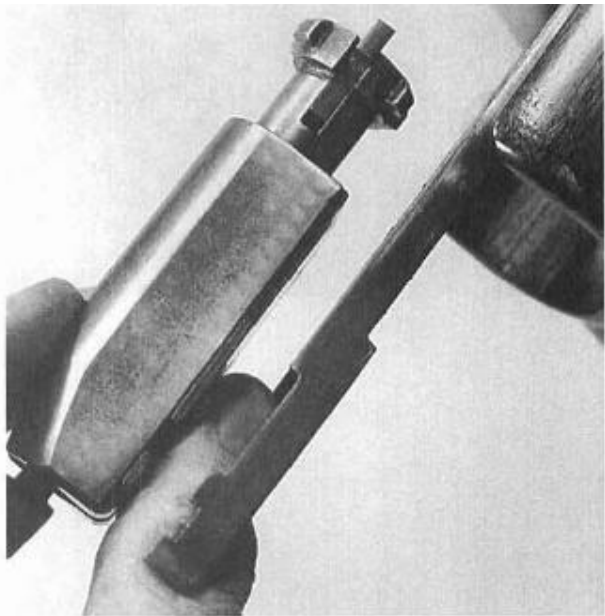
**15.** On late Model 1200 guns, the central frame of the trigger housing is easily detachable, after the parts are removed. If the subframe is removed, take care that the hammer stop pin at the front isn't detached and lost.



- 16.** Remove the slide bridge screw, located in the plate ("slide bridge") on the underside of the bolt.
  
- 17.** Remove the bolt and slide assembly toward the front.







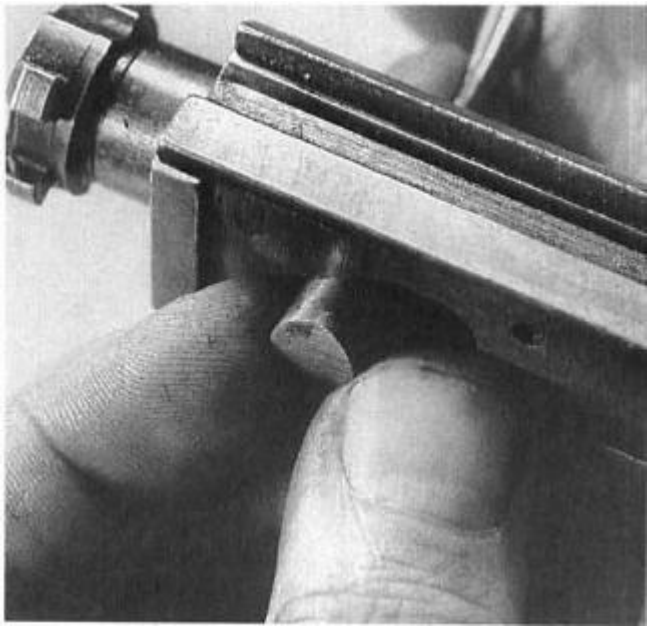
**18.** Keeping the slide bridge pressed against the bottom of the bolt, detach the bolt from

the action slide bars.

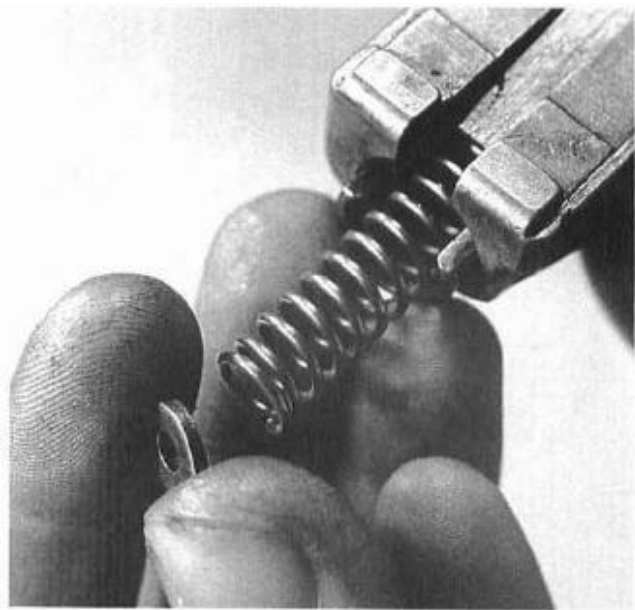
- 19.** Restrain the firing pin at the rear, and remove the slide bridge plate from the bottom of the bolt. Remove the firing pin and its spring from the rear of the bolt.

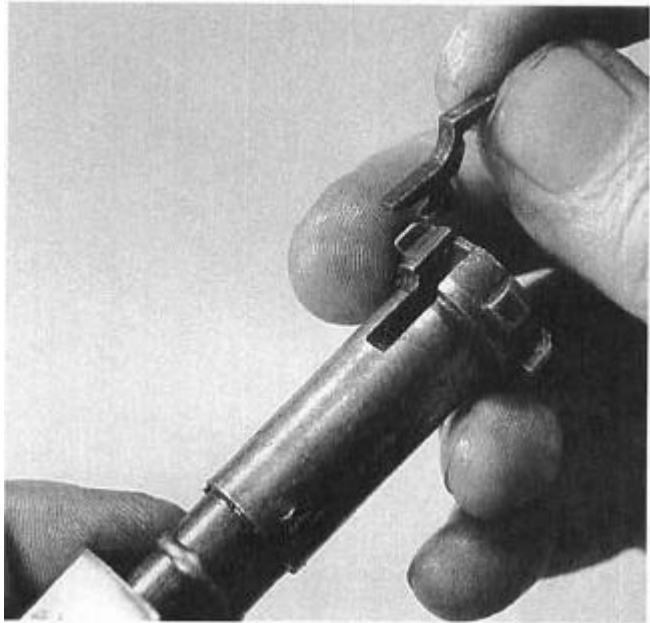


**20.** Turn the bolt head until the cam pin is about midway in its track on the underside of the bolt slide, aligning the top of the cam pin with the access hole in the top of the bolt slide. Use a drift punch to drive the cam pin downward. Caution: When the drift is removed, the extractor spring and washer will be re-released toward the rear. Insert a tool to restrain them.



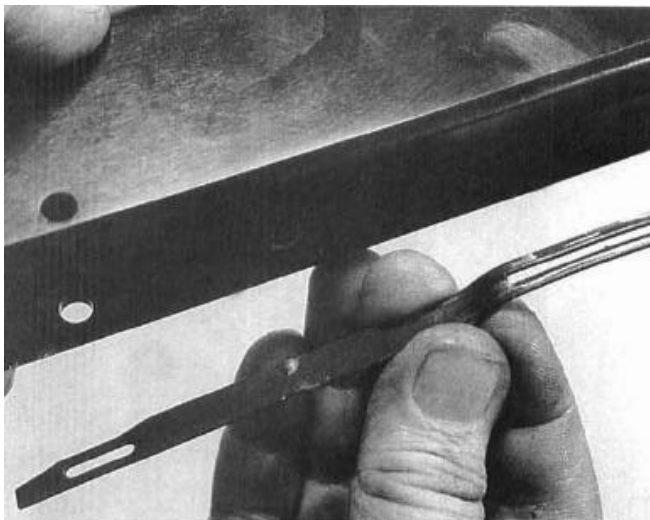
**21** Slowly release the extractor spring and washer, and remove them toward the rear.





**22.** Remove the bolt toward the front, and take out the extractor from its recess.

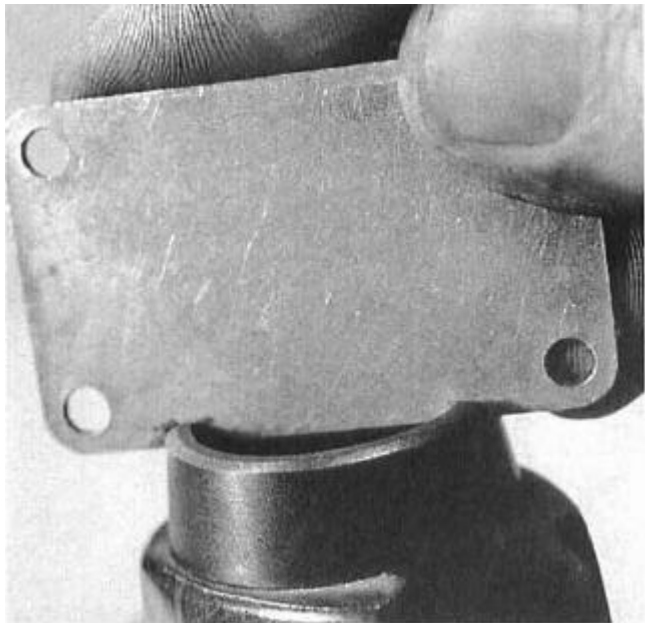




**23.** When the bolt and slide assembly are removed from the receiver, the ejector will be released for removal, Its long rear tail has an oblong

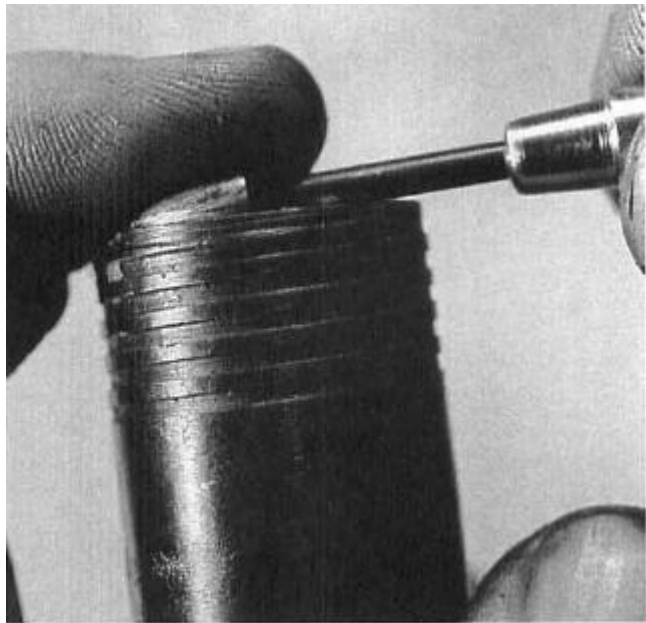
slot which rides on a fixed pin inside the rear of the receiver. Detach the ejector, and remove it.

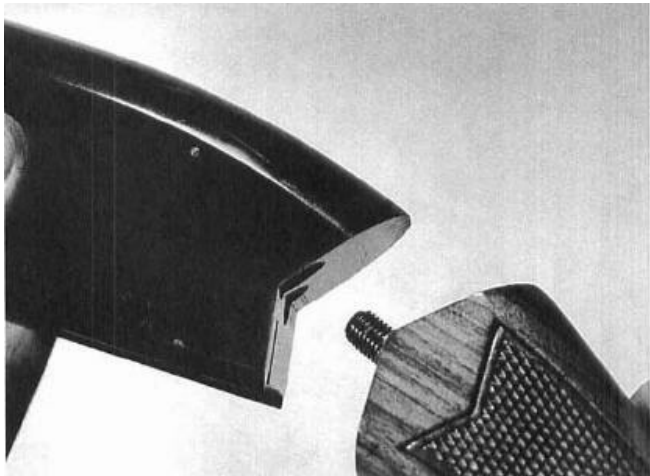
- 24.** With a piece of steel plate of suitable size to bridge the front of the forend, unscrew the forend cap nut, and remove the action slide assembly toward the rear.



**25.** Insert a screwdriver in the open end of the magazine spring retainer, and pry it

outward, moving the screw driver to raise it equally around its edge. Caution: The magazine spring will be released. Control it, and ease it out. Remove the spring and follower toward the front.





**26.** Remove the buttplate, and use a B-Square stock tool or a long-shanked screwdriver to back out the stock bolt. Remove the buttstock toward rear.

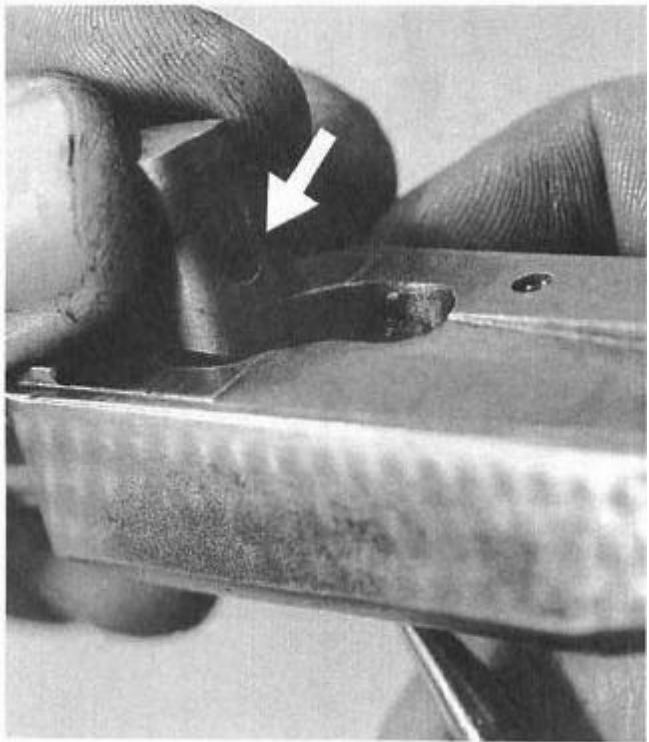


# Reassembly Tips:

1. It is possible to install the bolt in the bolt slide upside down. Remember that the extractor must be on the right side when the bolt system is reassembled. Also, remember that the firing pin passes through the cam pin, so the central hole (arrow) in the cam pin must be oriented for this. Note that the short end of the cam pin goes at the top. Insert a tool from the rear to compress the extractor spring



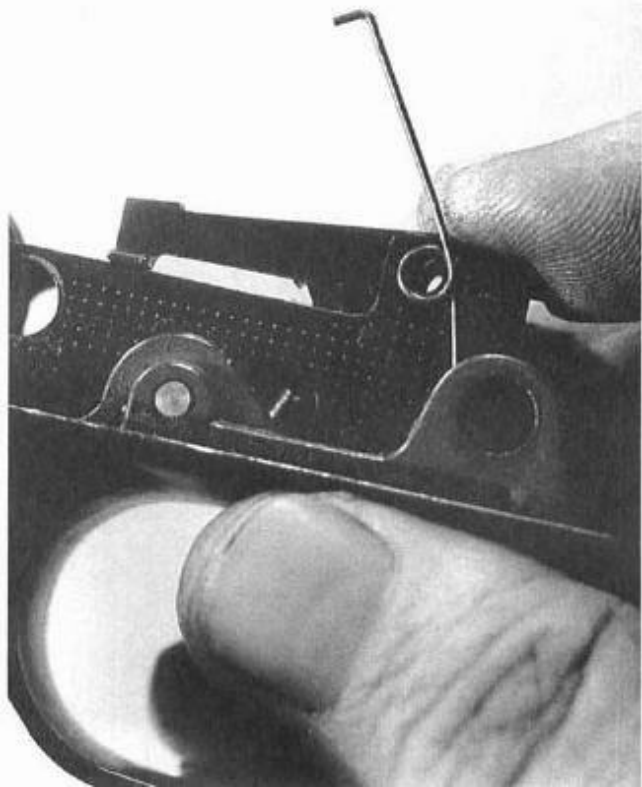
and washer when replacing the cam pin. A large roll-pin punch is ideal for this, as its central nose at the tip will fit into the washer hole.



**2.** When replacing the hammer and

hammer spring assembly, be sure the right lower tail of the spring enters its slot inside the trigger housing, to bear on the detent steps of the safety button. Also, note that there is a flat on one side of the hammer pivot pin, and this must be oriented to match the flat on the inside of the hammer bushings. If not, the bushings will be damaged, and the slide latch will not work properly.

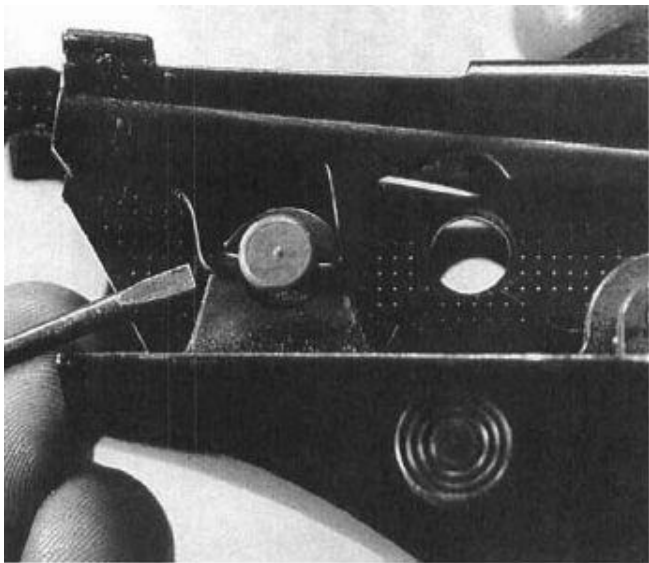




**3.** When installing the sear assembly and the slide latch and its spring, note that the sear spring must rest on the rear slope of the trigger. Also, be sure the rear tail of the slide latch spring enters its slot at the lower rear, where it becomes the detent for the retaining cross pin. The slide latch spring is shown in position for replacement of the slide latch.

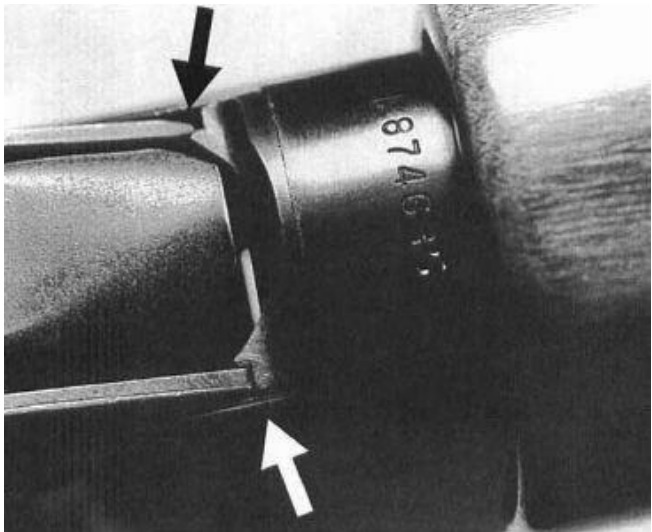
**4.** When the slide latch is installed, its front opening must fit on the

left tip of the hammer pivot, as shown.



**5.** When replacing the trigger housing in the receiver,

carefully hook the front edges of the sideplates into their recesses (arrows), then swing the housing up into place at the rear.





# **Winchester Model**

**1400**



## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Winchester Model 1400 also apply to the following guns:

**Winchester Model 1400 Mark II**

**Winchester Model 1500XTR**

**Data:** Winchester Model  
1400

**Origin:** United States

**Manufacturer:** Winchester  
Repeating Arms  
New Haven,

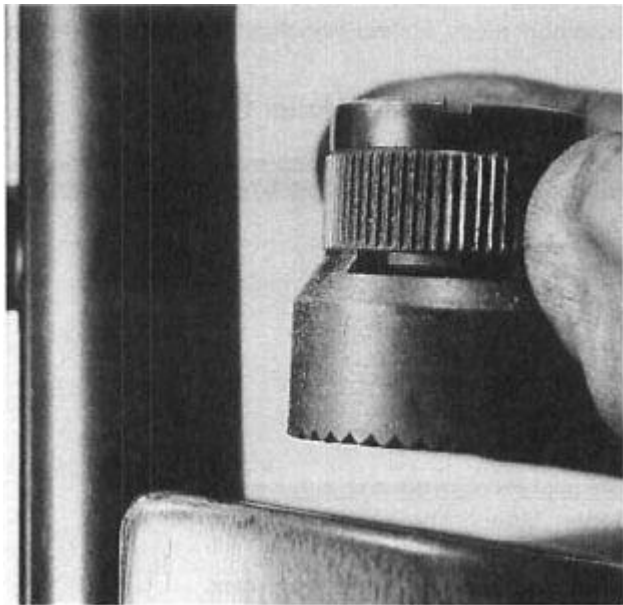
<b>Gauges:</b>	Connecticut 12 and 20
<b>Magazine capacity:</b>	2 rounds
<b>Overall length:</b>	49 inches (with 28-inch barrel)
<b>Barrel length:</b>	22 to 30 inches
<b>Weight:</b>	6-1/2 to 6-3/4 pounds

Like its slide-action counterpart, the

Model 1200, this gun was available for a lime in 16-gauge. Both guns were introduced in 1964. The Model 1400 was slightly redesigned in 1968, and was then designated the Model 1400 Mark II. The stock was restyled, and the carrier release system was changed. Otherwise, the mechanism is virtually the same, and except for the carrier release area the instructions can be applied. The Model I500XTR is mechanically the same.

# Disassembly:

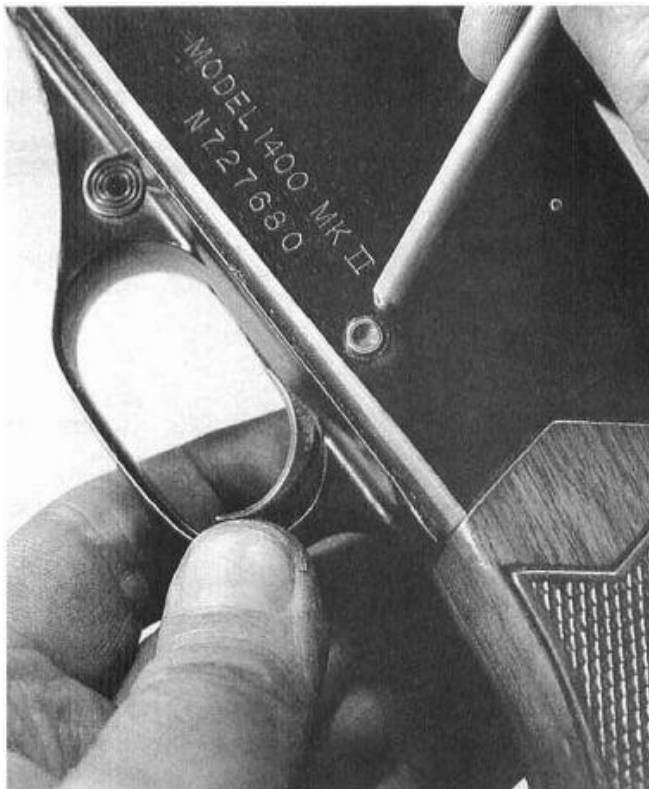
1. Pull back the operating handle to lock the bolt open, and set the safety in the on-safe position. Unscrew the magazine end cap and remove it, and take off the barrel and forend toward the front.



2. Restrain the bolt, depress the carrier latch, and ease the bolt forward to the closed position. Push out the cross pin at the

lower rear of the receiver  
toward either side.

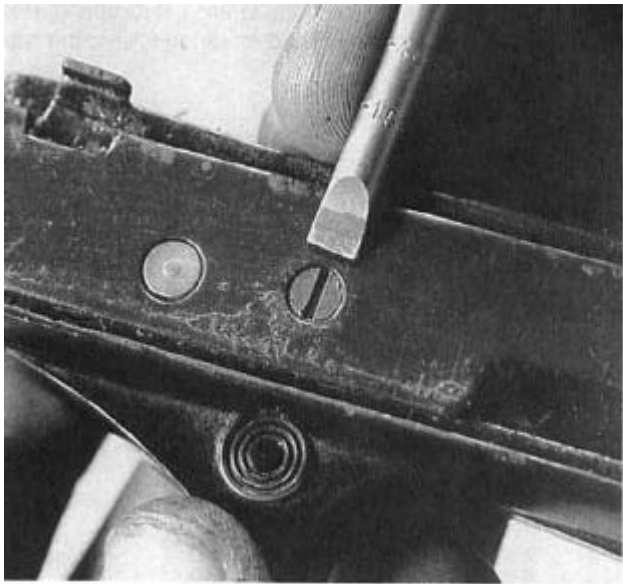






MODEL 1400 MK II  
N727680

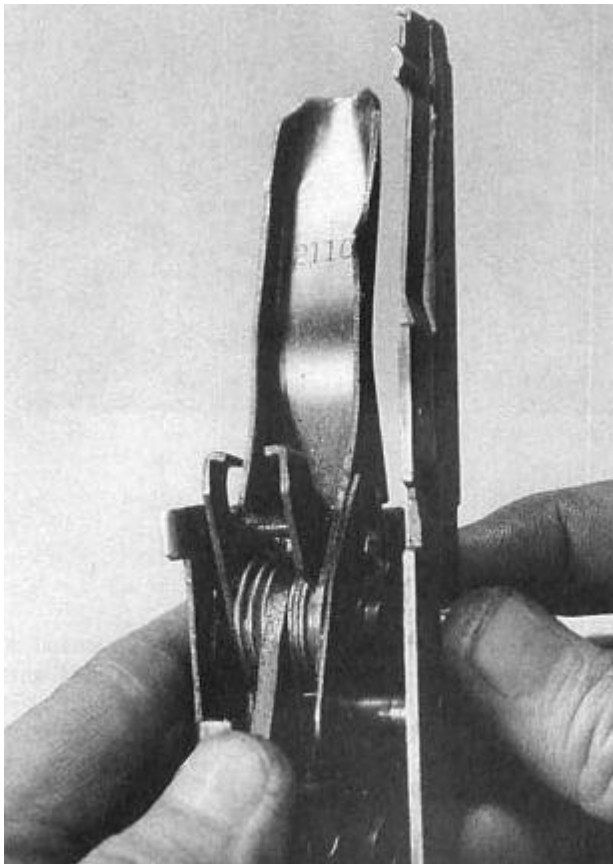
3. Tip the trigger housing downward at the rear, and remove it downward and toward the rear.
4. Remove the screw in the center of the left sideplate on the trigger housing.



5. Take off the left sideplate. Note that both the right and left shell stops are heavily riveted on the sideplates, and are not

designed to be routinely  
removed.

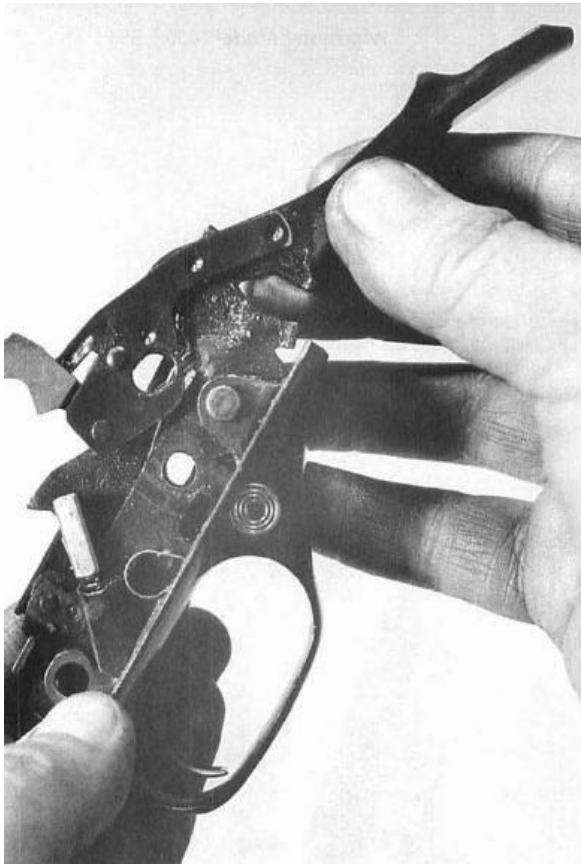




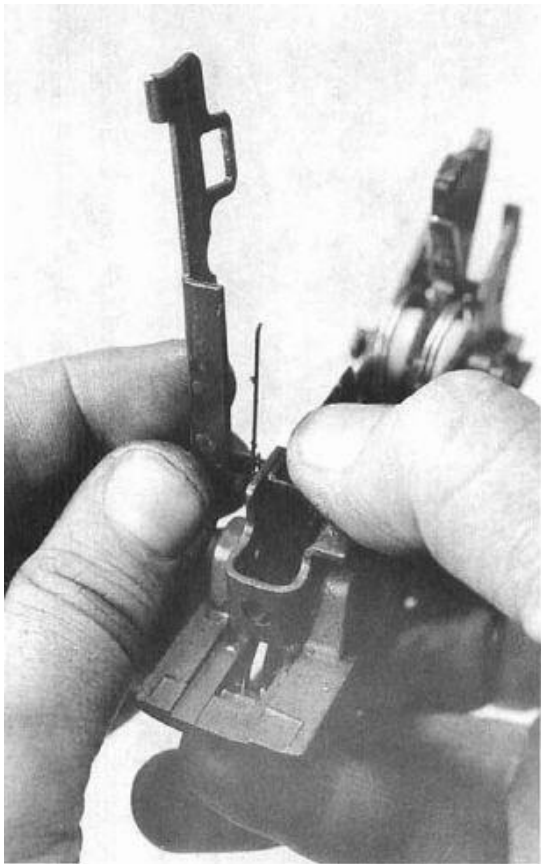
6. Restrain the carrier, and take off the right sideplate. Note that the carrier pivot is permanently mounted on the right sideplate, and the carrier will be released as the plate is removed.
7. Slowly release the tension of the carrier spring. Move the rear of the carrier upward, and take off the carrier toward the front. Also, remove the carrier spring and plunger, and take off the carrier support spring. The carrier dog is cross pin

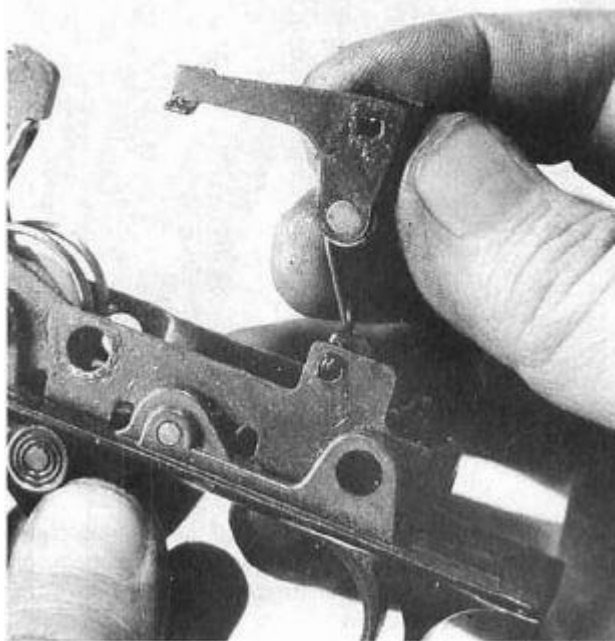


mounted on the right rear wing of the carrier, and is not removed in normal takedown. If removal is necessary for repair, the pin is drifted out toward the right.



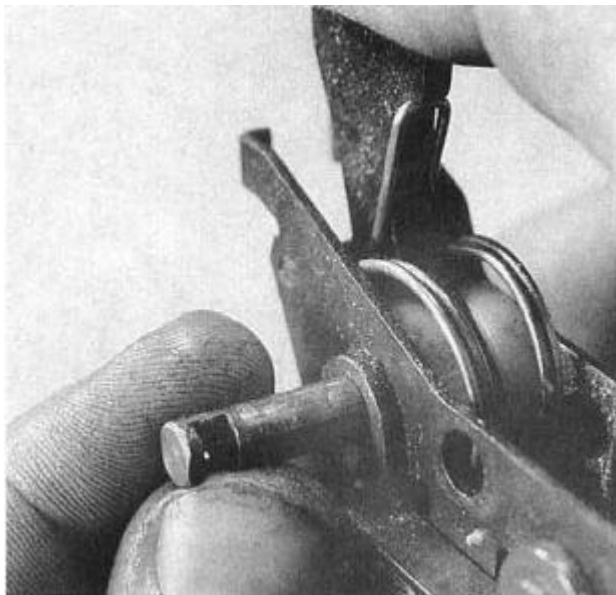
**8.** Move the safety to the off-safe position, restrain the hammer, pull the trigger, and ease the hammer down to the fired position. Depress the front of the disconnecter and move it toward the left, holding a thumb on top of the sear assembly to restrain it. When the disconnecter is moved out far enough to clear, allow it to swing upward, relieving the tension of its spring. Remove the disconnecter and its spring toward the left.





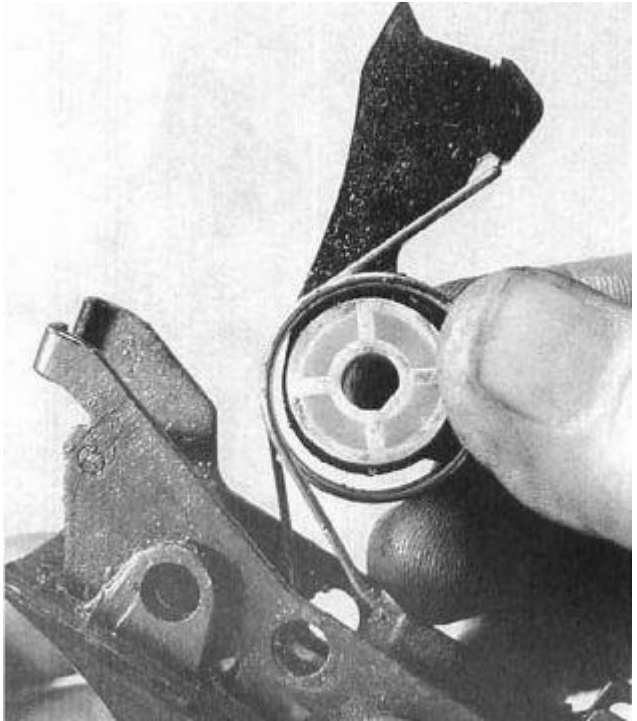
**9.** Removal of the disconnectors will have released the sear assembly, and it can now be taken off upward. The sear and its spring can be removed from the sear bracket by drifting out the cross pin toward the left, but extreme care must be taken to avoid damage to the bracket. In normal takedown, this unit is left intact.

**10.** Restrain the hammer, and push out the hammer pivot toward the left.

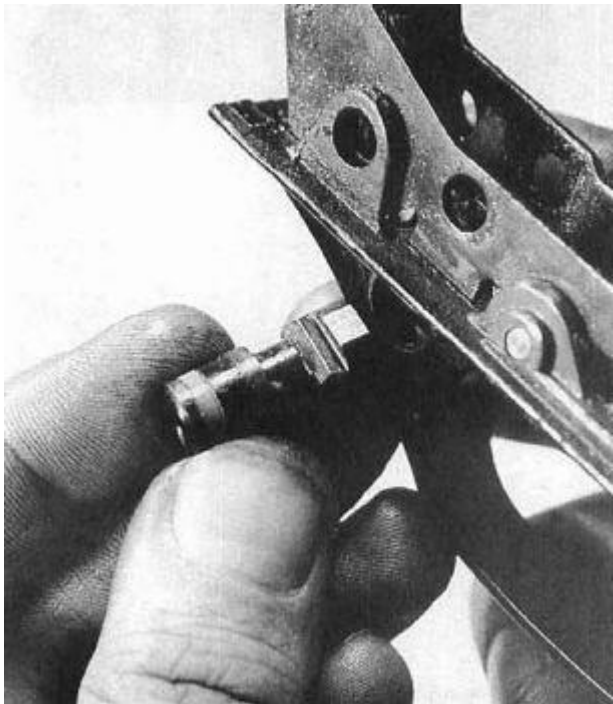


**11** Remove the hammer and hammer spring assembly upward. The nylon bushings

and the spring are easily removed from the hammer.

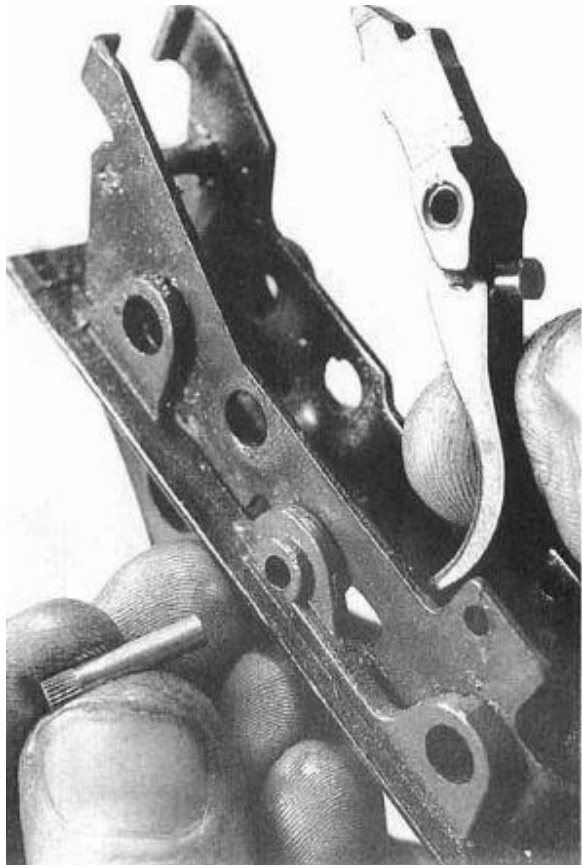




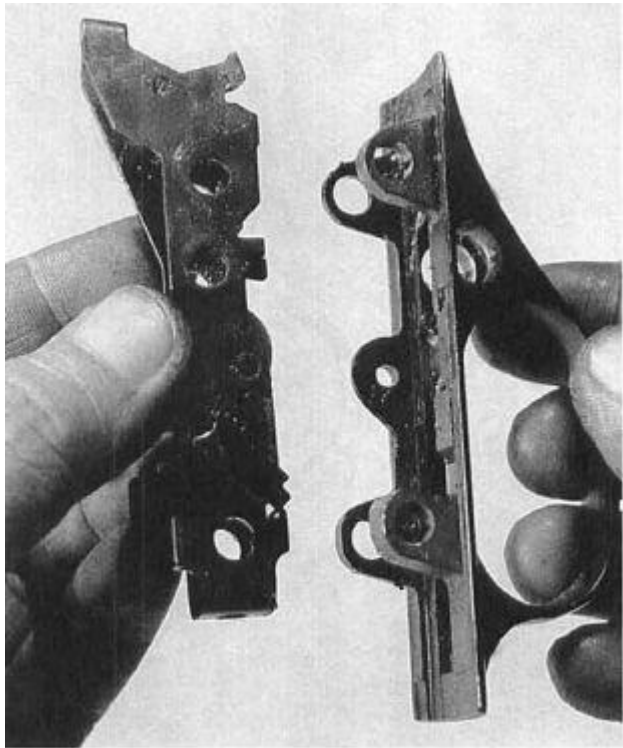


**12.** Remove the safety button toward the left.

**13.** Drift out the trigger pin toward the left, and remove the trigger upward. The stud set into the top of the trigger should not be disturbed.

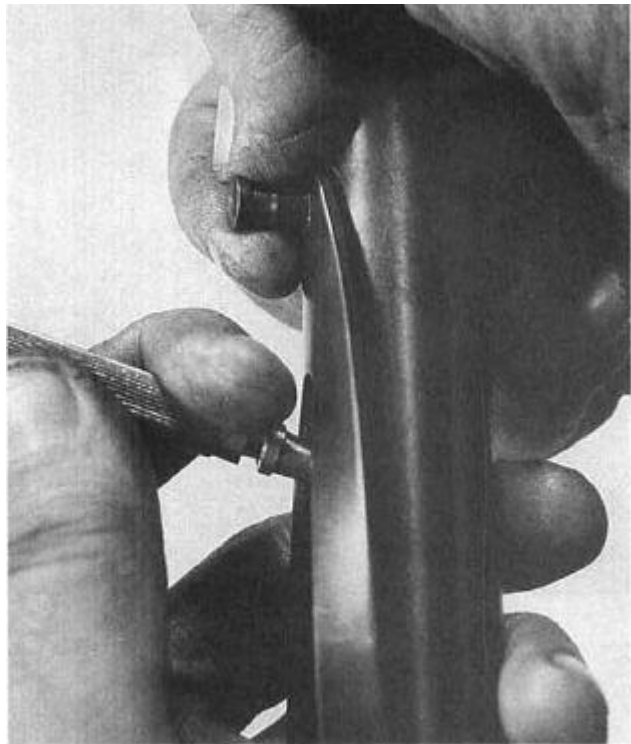


**14.** After the parts are removed, the central subframe is easily detached from the trigger housing.



**15.** Insert a tool at the front to

retract the recoil spring, and lift the piston pin out upward. Caution: Keep the spring under control.





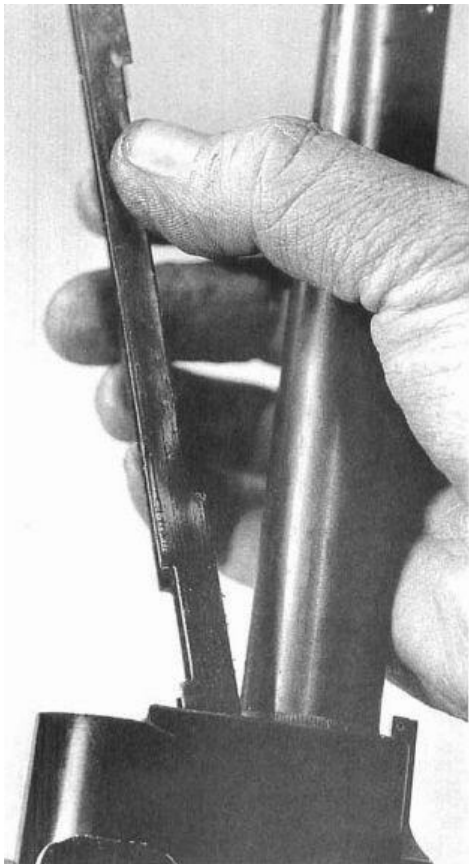


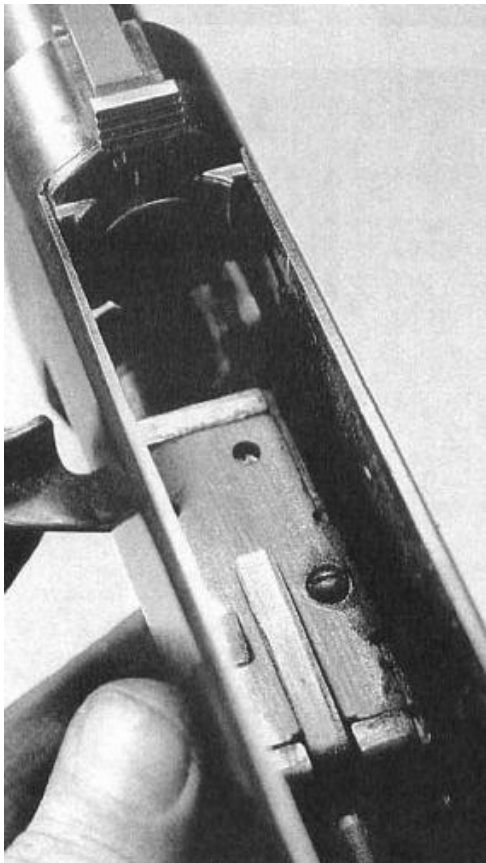
**16.** Keeping the spring restrained with a tool, remove the piston from the front of the magazine tube.



**17.** Slowly release the spring tension, and remove the spring from the front of the magazine tube. Caution: The recoil spring is quite powerful. Don't let it get away.

**18.** Tilt the action slide bars upward at the front, move the bolt toward the rear, and remove the action slide toward the front.





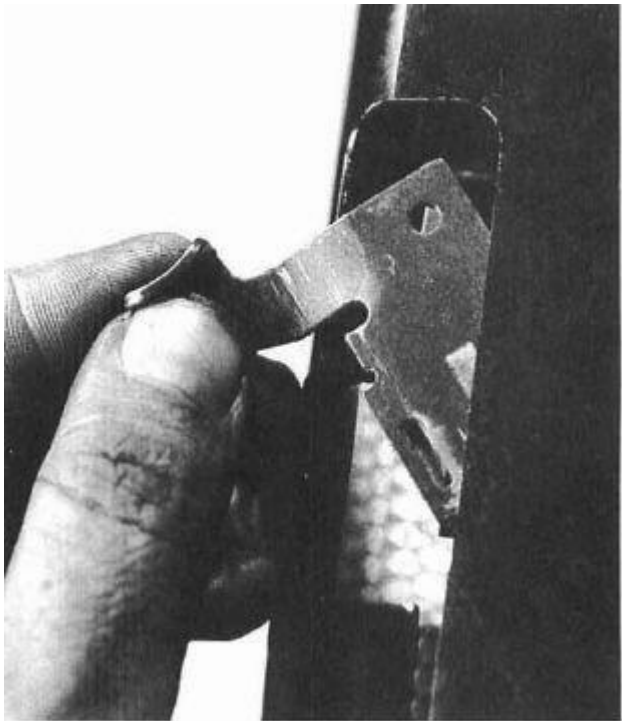
**19.** Insert a screwdriver through the bottom of the receiver, and remove the bridge plate retaining screw. Restrain the firing pin, and lift the bridge plate at the rear to free it. Remove the firing pin and its spring from the bolt.

**20.** Insert a screwdriver at the rear of the receiver to unhook the ejector from its post, and remove the ejector toward the front.



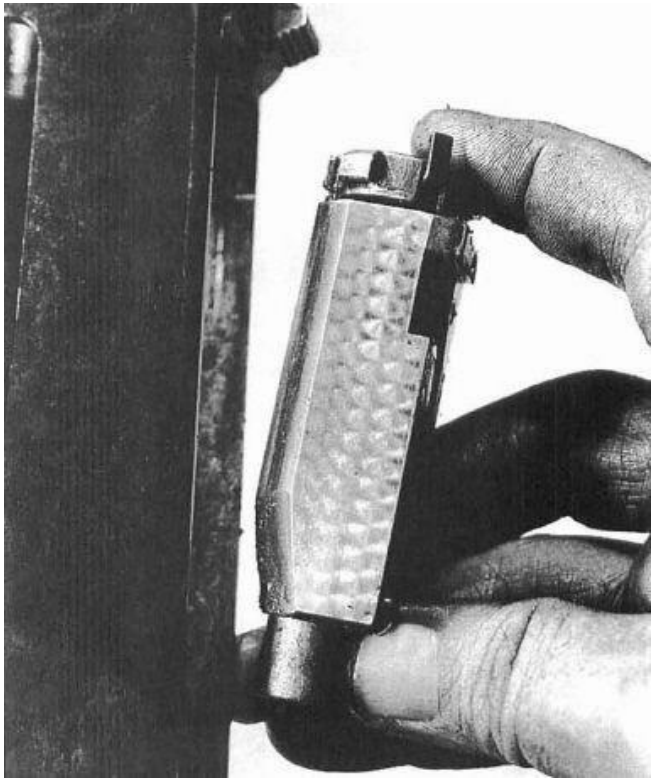
**21.** Tip the operating handle upward, turn the plate as shown, and remove it through the ejection port.

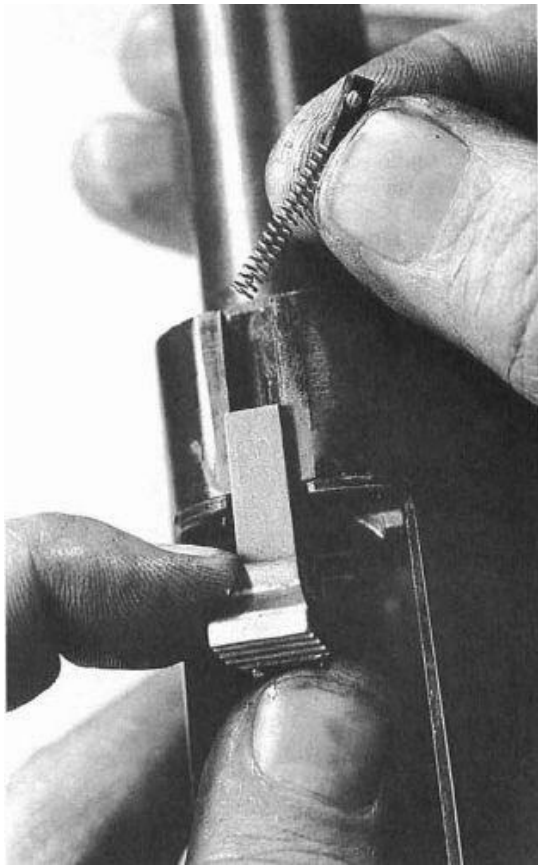




**22.** Remove the bolt from the

bottom of the receiver.

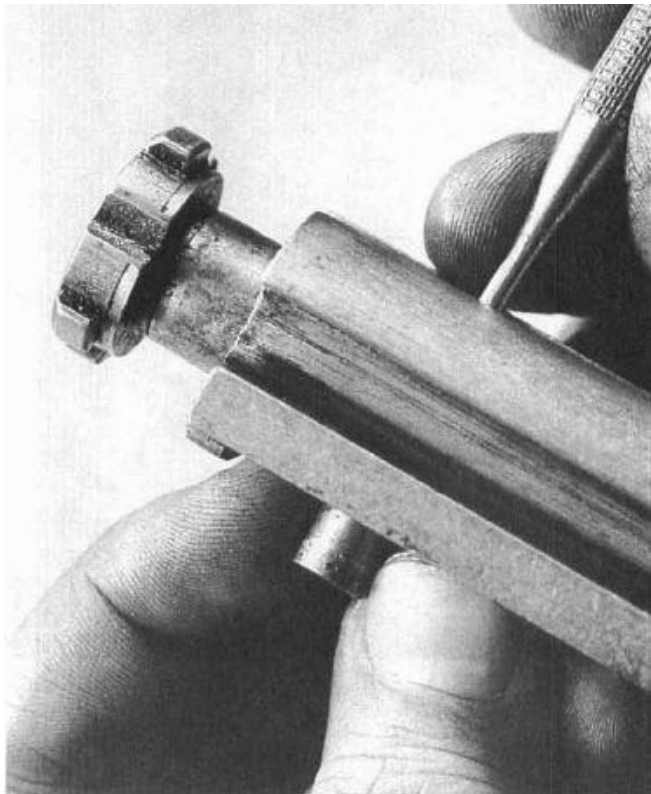


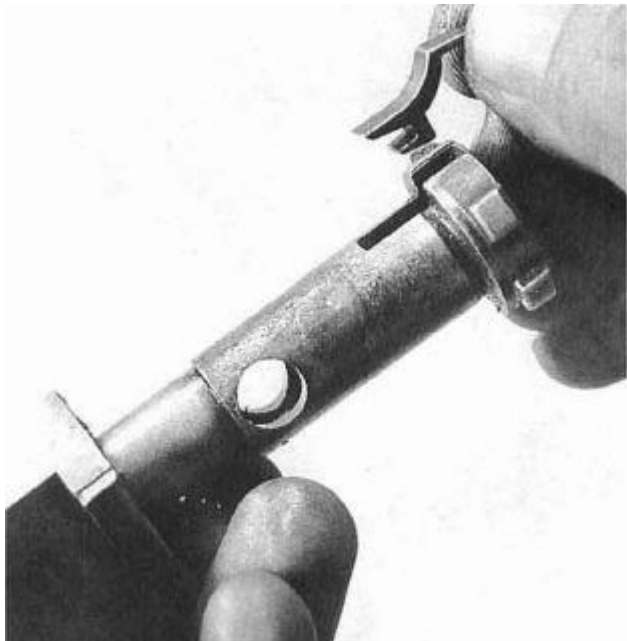


**23.** Drifting out the roll pin in the front tip of the carrier latch will allow removal of the carrier latch spring and retainer toward the front, and the latch toward the rear. Caution: When the pin is out these parts will be released in both directions, so restrain them and ease the spring tension slowly. In normal takedown, it's best to leave the carrier latch in place, as its front edges are easily broken during removal. The magazine system is another area that should not be disturbed, as

removal and replacement is particularly difficult, with a good chance of damage to the parts.

- 24.** Position the bolt in its slide piece to align the cam pin with the access hole in the top of the slide, and drift the cam pin out downward. Caution: The extractor spring and its washer will be released toward the rear as the cam pin clears, so restrain them and ease them out





**25.** Remove the bolt from the bolt slide, and take out the extractor from its recess.



**26.** Remove the buttplate, and use a B-Square stock tool or a long-shanked screwdriver to back out the stock bolt. Remove the buttstock toward the rear.

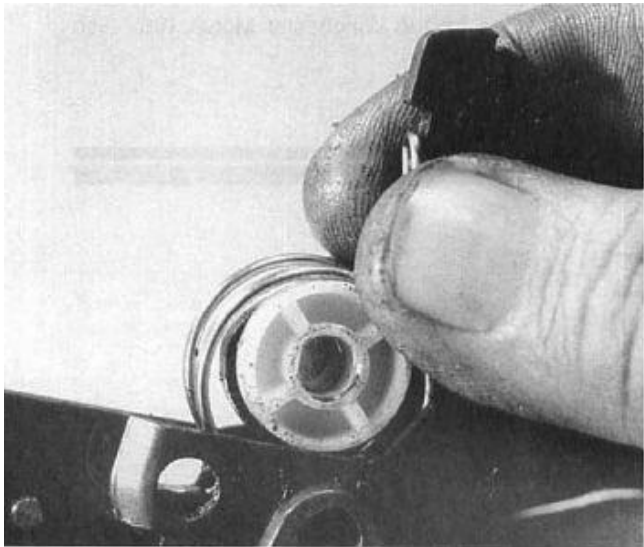


# Reassembly Tips:

1. When replacing the cam pin, note that its cross hole must be oriented for passage of the firing pin, and that the end nearest to the hole must be toward the top of the bolt. Also, note that it is possible to install the bolt in the slide piece upside down, so be sure the extractor is on the right side. A large roll-pin punch is useful for compressing the extractor spring and washer before insertion of the cam

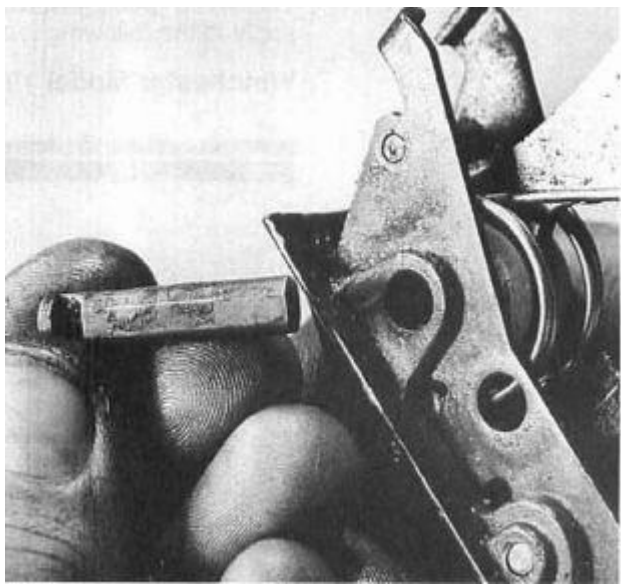
pin.

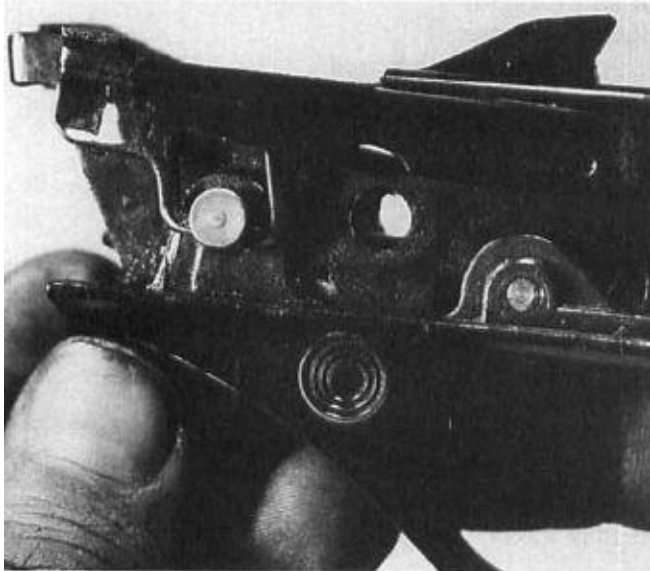
- 2.** When replacing the gas piston, note that the two small holes at the front of the piston must be at the top.
- 3.** When installing the hammer and hammer spring assembly, be sure the right lower tail of the spring enters its slot in the trigger housing, and contacts the detent steps on the safety button.



4. When replacing the hammer pivot, be sure that the flat on the side of the pivot pin mates with the flat inside the nylon bushings, or they will be

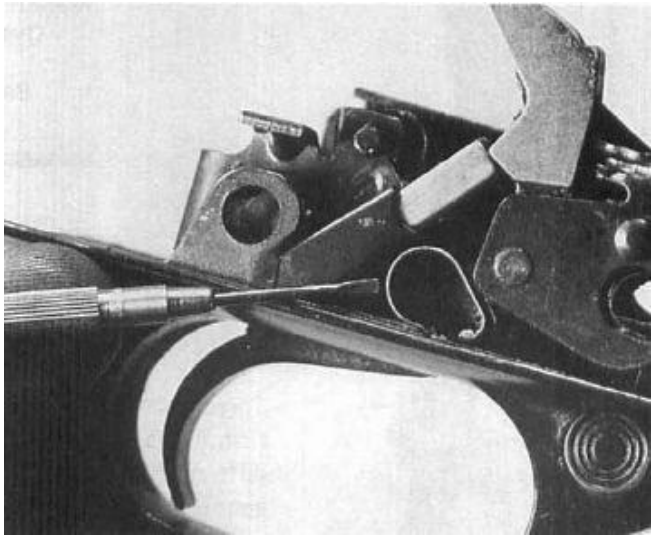
damaged.





5. When installing the disconnecter, note that its opening at the front must engage the notch in the left end

of the hammer pivot, as shown.



6. Before replacing the right sideplate and carrier pivot, be



sure the carrier support spring is properly installed, as shown.

When replacing the trigger housing, carefully engage the front tips of the sideplates with their recesses in the receiver, then swing the rear of the housing upward into place.

# **Winchester Model**

**1887**



## Similar/Identical Pattern Guns

The same basic assembly/disassembly steps for the Winchester Model 1887 also apply to the following guns:

### Winchester Model 1901

<b>Data:</b>	Winchester Model 1887
<b>Origin:</b>	United States
<b>Manufacturer:</b>	Winchester Repeating Arms New Haven, Connecticut
<b>Gauges:</b>	10,12
<b>Magazine capacity:</b>	5 rounds
<b>Overall</b>	49 inches (with 32-inch

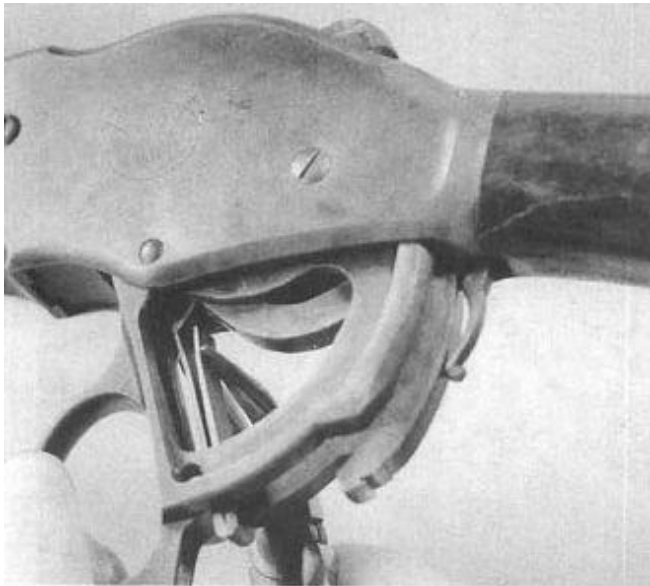
<b>length:</b>	barrel)
<b>Barrel length:</b>	20,22,30 & 32 inches
<b>Weight:</b>	8-3/4 pounds

There are very few lever-action shotguns, and the Winchester Model 1887 was the first. It was replaced by the Model 1901, a slight redesign with no major mechanical differences. The Model 1901 was made until 1920. Firing modern shells in these guns is not advisable. The Model 1887 was

designed by John Moses Browning.

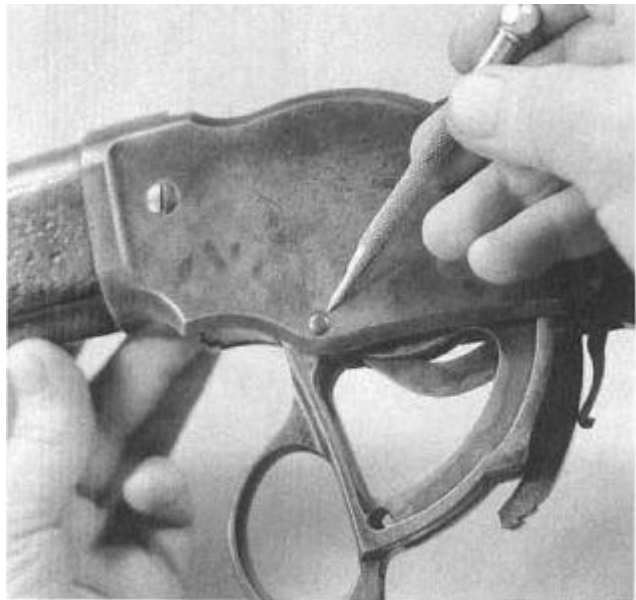
# Disassembly:

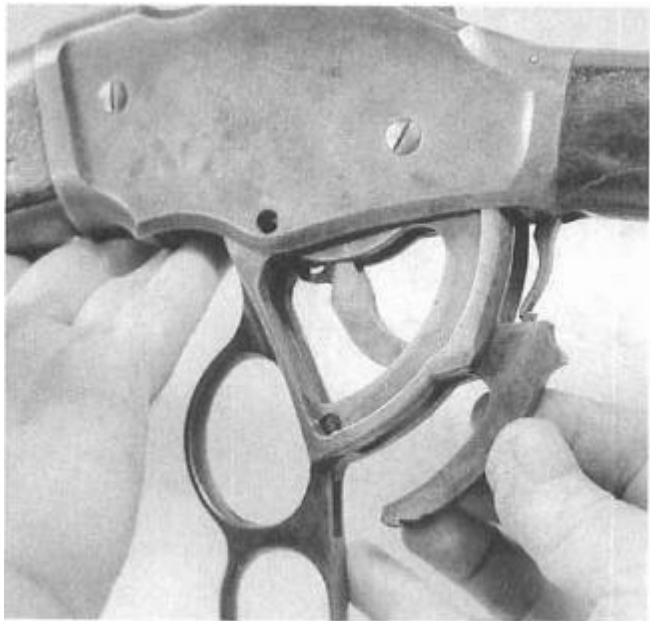
1. Open the action, and use non-marring pliers to compress the mainspring. Lift the front hooks of the lower arm of the spring from their grooves in the cross pin, and remove the spring toward the rear.



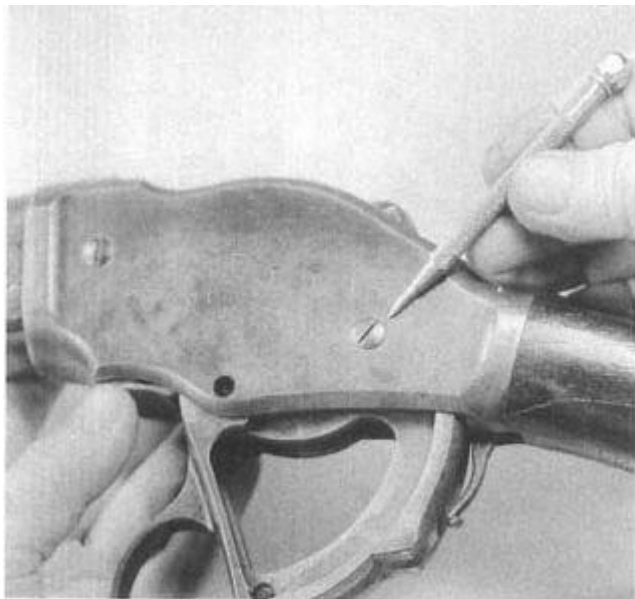
**2.** Push out the action pivot pin toward either side.







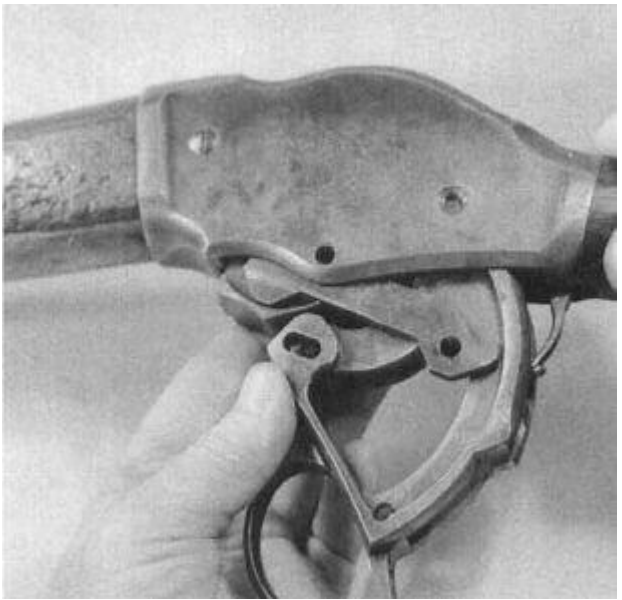
3. Move the hammer downward, and remove it through the rear opening of the lever unit.



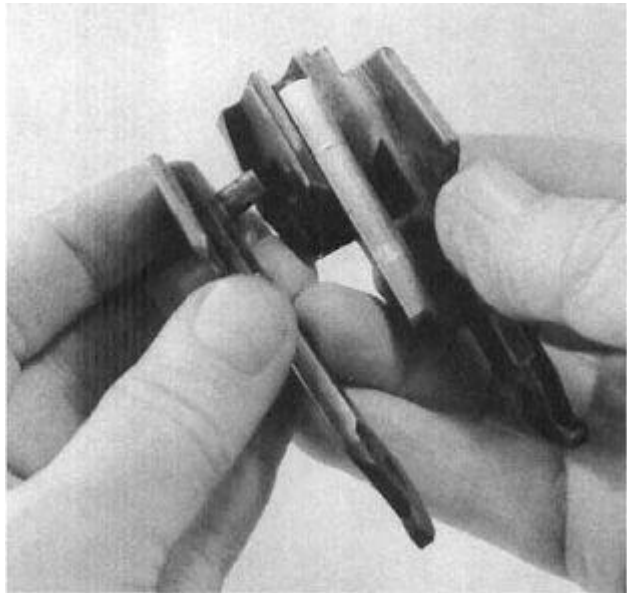
4. Remove the carrier pivot screws, one on each side.

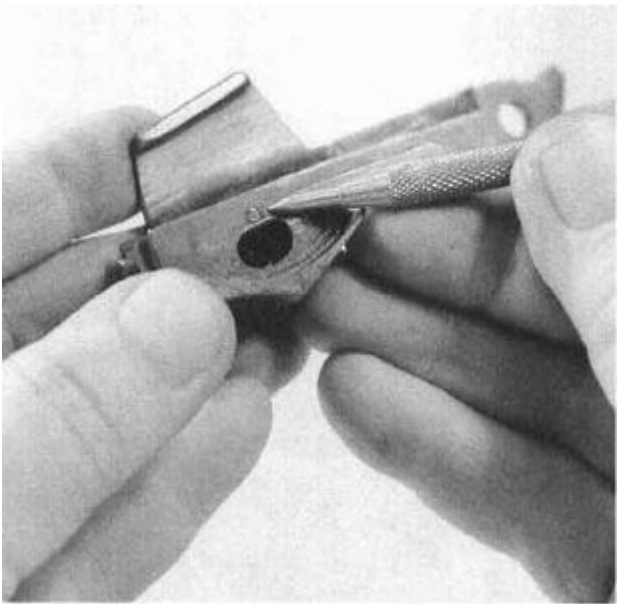
# Disassembly:

5. Remove the lever and bolt unit, and the carrier assembly, downward.

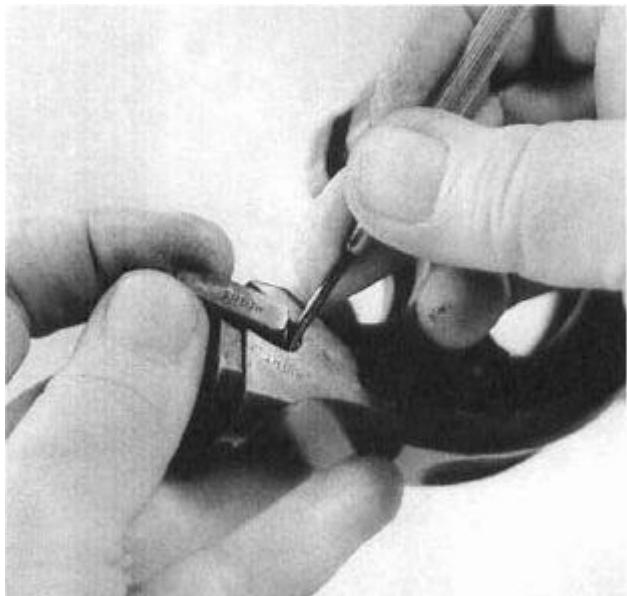


**6.** On removal, the carrier will separate into two parts.





7. Drifting out the cross pin in the main carrier unit will allow removal of the shell lifter. The pin is drifted out the right.

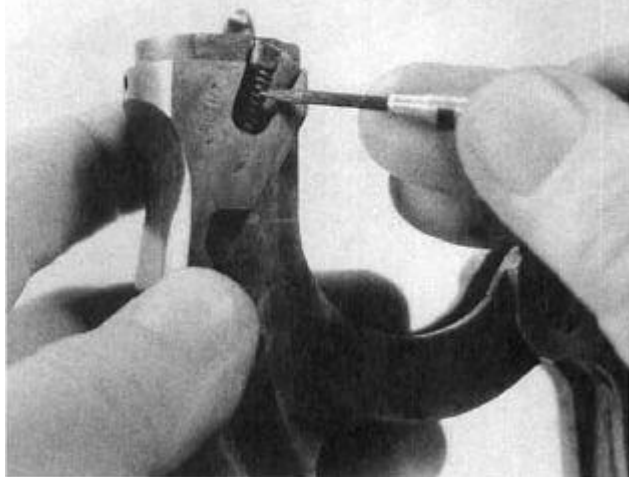


- 8.** Insert a small tool to depress the extractor plunger, and lift the extractor out of its recess.



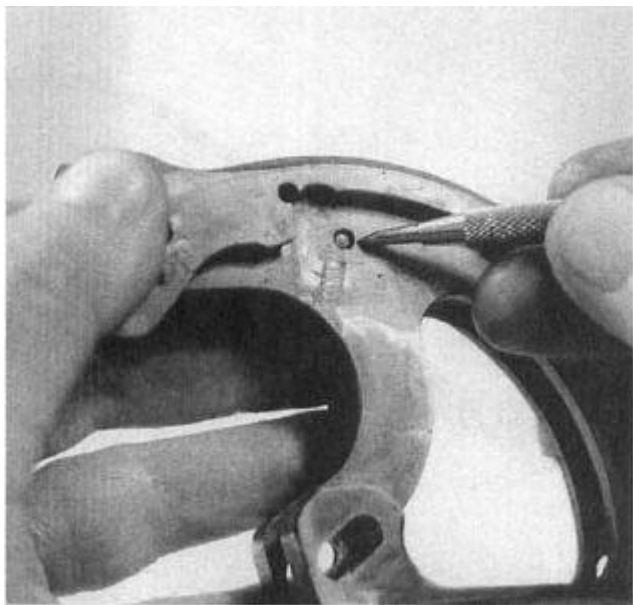
Repeat the operation on the other extractor. Control the plungers and springs.

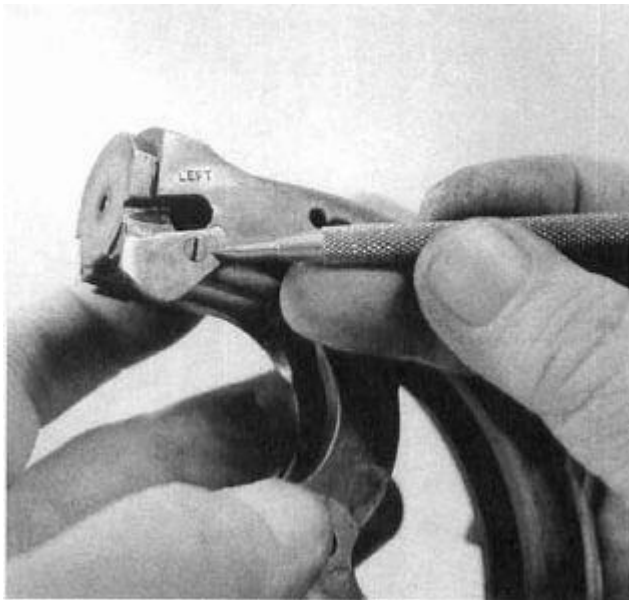
- 9.** Remove the extractor plungers and springs.



**10.** A cross pin in the bolt retains the two-piece firing pin and its return spring. Drift the pin out toward the right, and remove

the parts rearward.



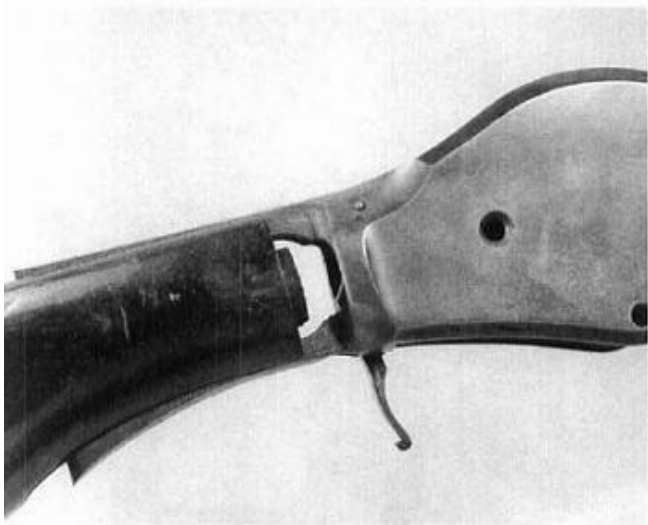


**11.** The carrier trip plate is retained by a screw, and the plate is taken off toward the left.

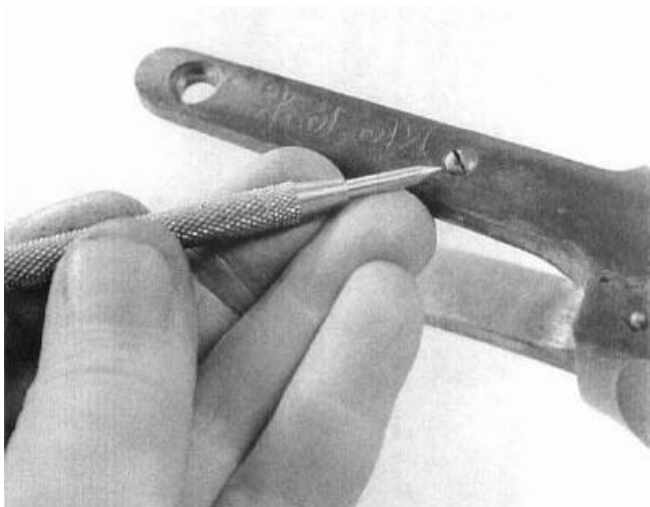


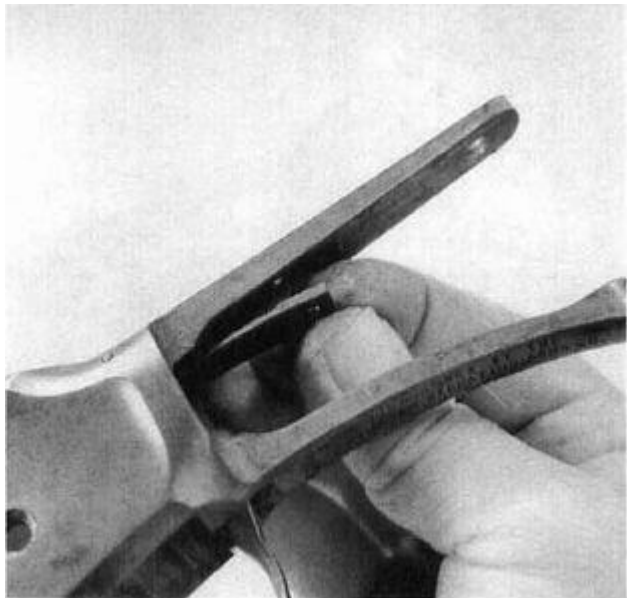
**12.** Remove the stock mounting bolt.

**13.** Remove the buttstock toward the rear.



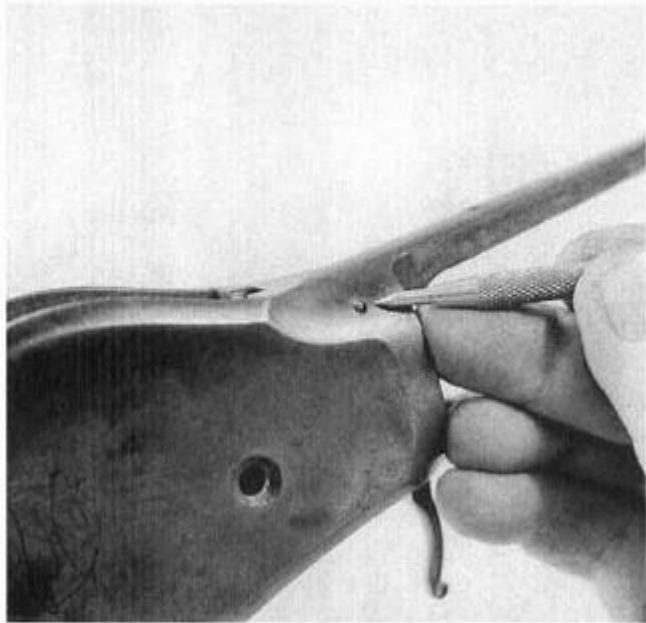
**14.** Remove the trigger spring screw.





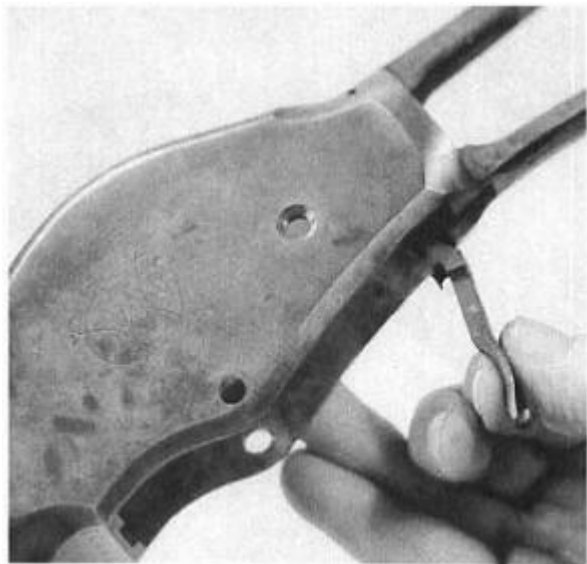
**15.** Remove the trigger spring.





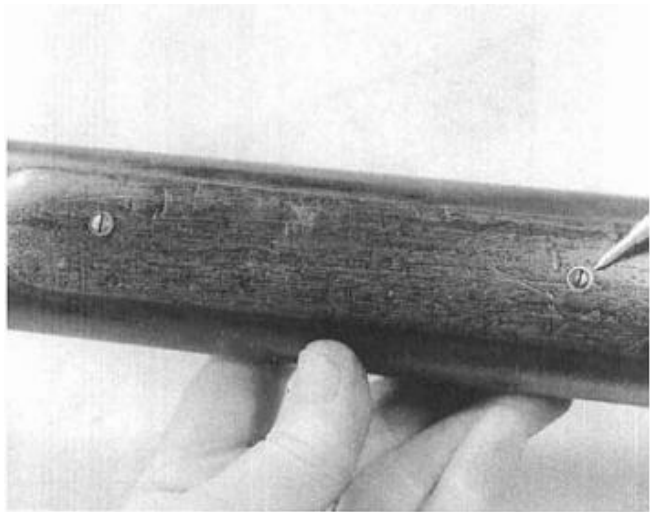
**16.** Drift out the trigger cross pin.

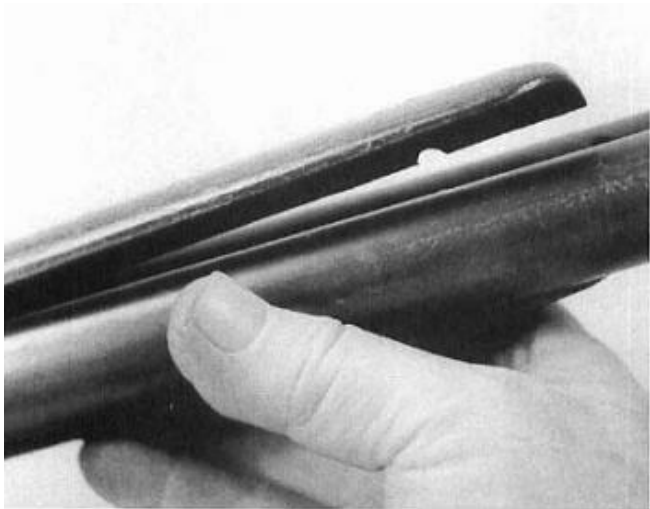
**17.** Move the trigger forward, and remove it downward.



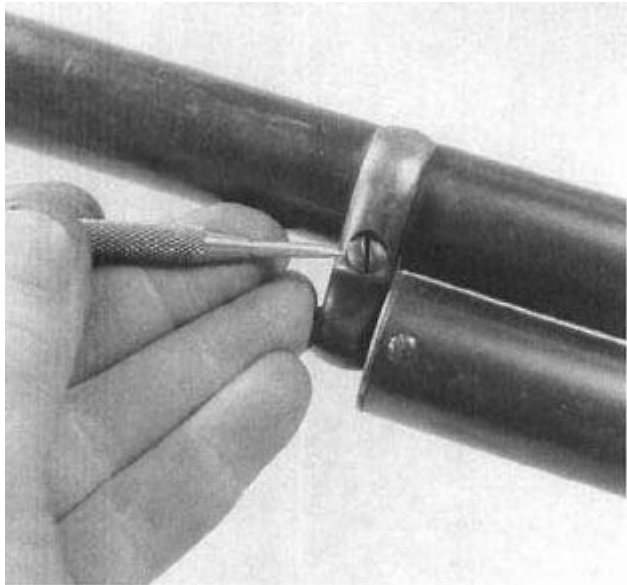
**18.** Very early Model 1887 guns

will have a single screw retaining the forend panels. Remove the screw, or two screws, if the gun is a later version like the one shown.





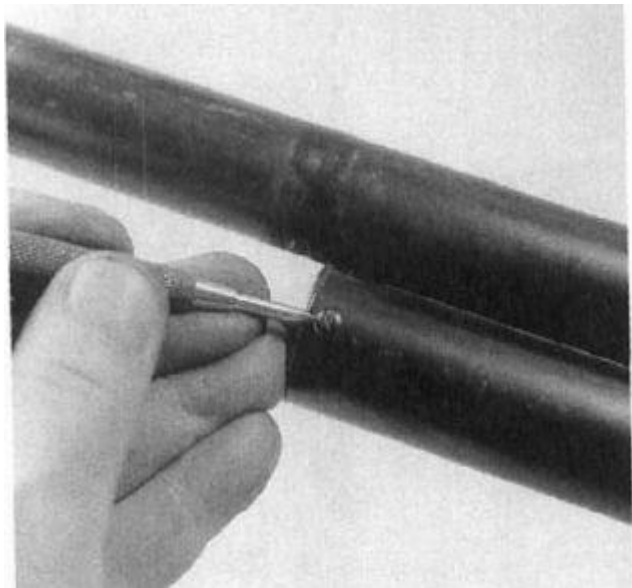
**19.** Tip the forend panels outward at the front, then remove them toward the front.



**20.** On early Model 1887 guns, the magazine is retained by a vertical screw at the front. Later versions, as the one

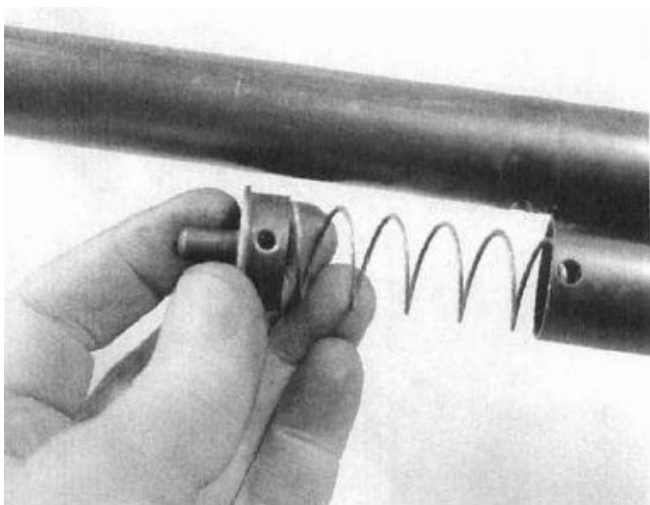
shown, have a barrel band. Remove the cross screw in the band, and use a non-marring tool to nudge the band forward for removal.

- 21.** Remove the screw in the side of the magazine tube.

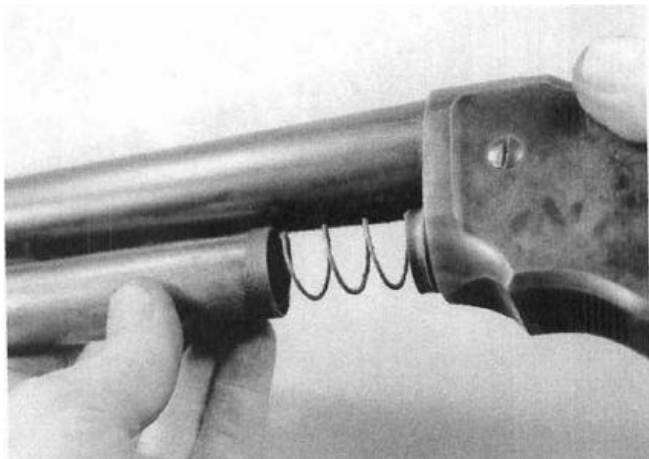


**22.** Remove the end piece, the magazine spring, and the follower toward the front. Control the spring as the end

piece is taken out.

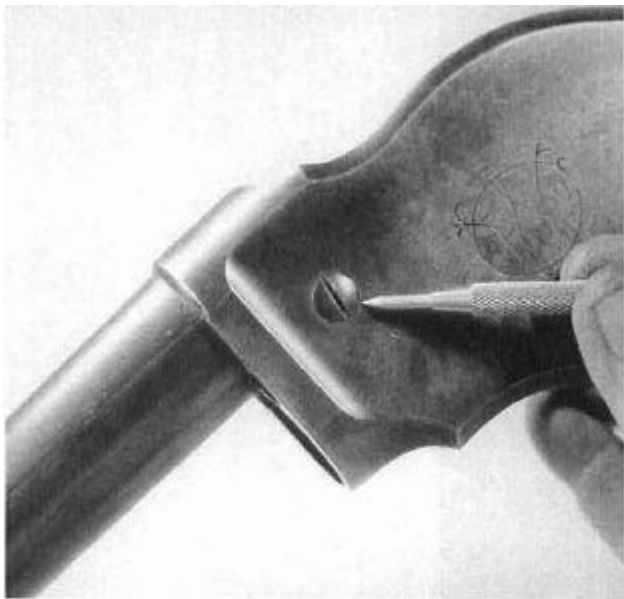






- 23.** If the end piece is very tight, the tube can be unscrewed from the receiver without removal of the end piece, and the spring and follower can be taken out rearward.

**24.** The plug screw on the left side retains no part, and in normal takedown it is best left in place.



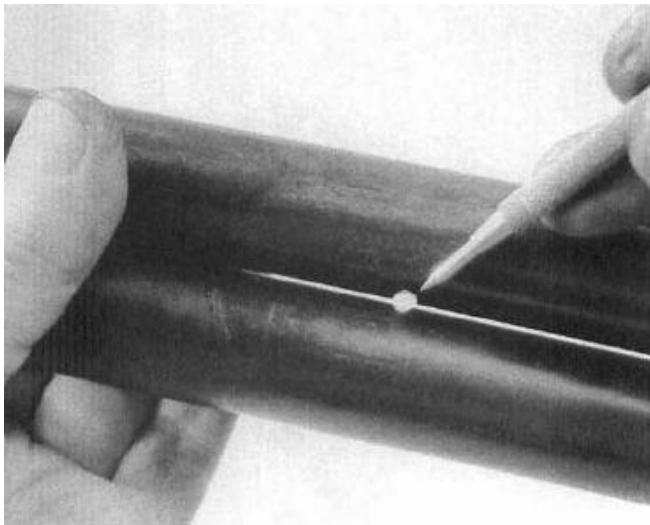


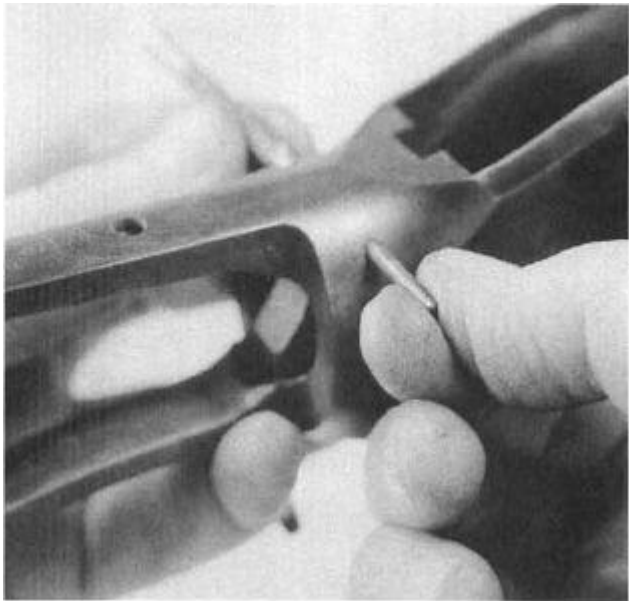
**25.** On the right side, the larger screw is the carrier stop screw, and the smaller screw is an extractor guide. These,

also, are not removed in normal takedown.

# Reassembly Tips:

1. If the magazine tube has been removed, it is not screwed back in tightly. There is an index mark on the tube and the receiver for alignment, but these marks are often faint. Just be sure that the cross screw grooves on the tube and on the barrel are properly matched for passage of the screws, as shown.





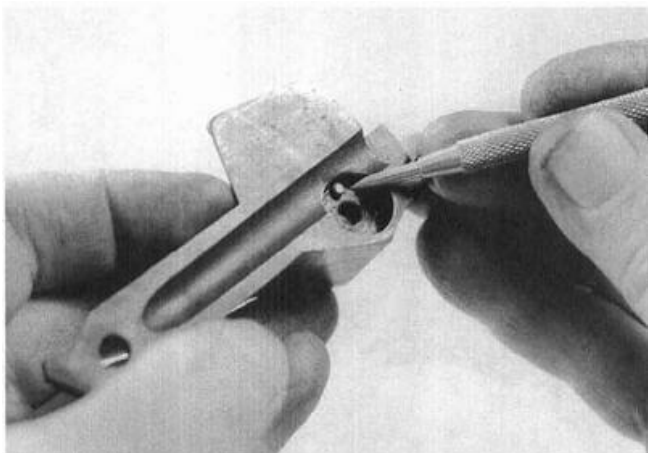
**2.** Remember that the trigger must be inserted and moved back into position. Use a drift to align the holes before

insertion of the cross pin.

- 3.** There is no chance of mixing up the extractors, as each one, and the sides of the bolt, are clearly marked "LEFT" and "RIGHT."







4. If the shell lifter has been taken out, the pin must be even with the left side of the carrier unit, and should protrude slightly into the well on the right side, as shown.

# **Winchester Super-X**

## **Model 1**



**Data:** Winchester  
Super-X Model 1

**Origin:** United States

**Manufacturer:** Winchester  
Repeating Arms  
New Haven,  
Connecticut

**Gauges:** 12 only

**Magazine  
capacity:** 3 rounds

**Overall  
length:** 46 inches

**Barrel length:** 26 to 30 inches

**Weight:** 7-1/2 pounds

As early as 1968, Winchester engineers were beginning preliminary design of a gas-operated autoloader that was intended to be a counterpart to the slide-action Model 12, with similar looks and handling characteristics. The design was finalized and introduced in 1975 as the Super-X Model 1. There are several unusual features, including a two-piece non-tilting bolt and a short-stroke steel rod to transfer the piston stroke to the bolt slide, a system totally unlike all other gas-operated shotguns.

The Super-X Model 1 was discontinued in 1981.

# Disassembly:

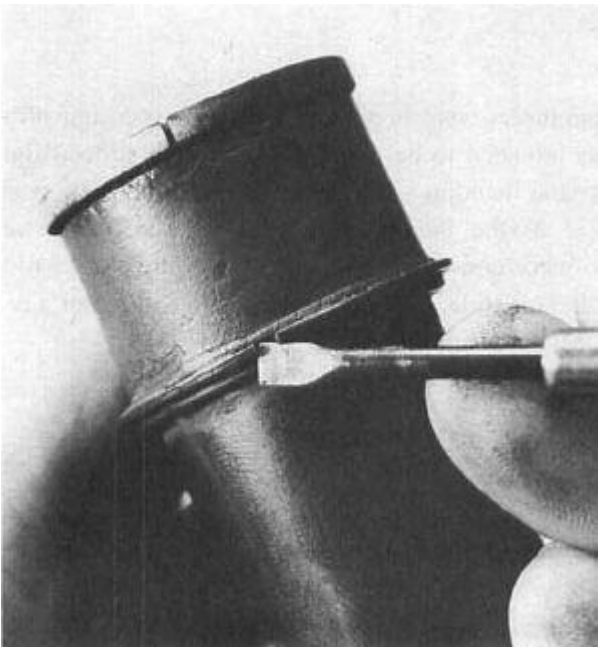
1. Pull back the operating handle and lock the bolt in the open position, and set the safety in the on-safe position. Unscrew and remove the magazine end cap, and take off the forend and the barrel toward the front. Move the rubber O-ring and the steel gas-seal ring off the magazine tube toward the front.





2. Move the piston sleeve assembly off the magazine tube toward the front.





3. The piston head can be removed from the front of the sleeve by taking off its retaining ring,

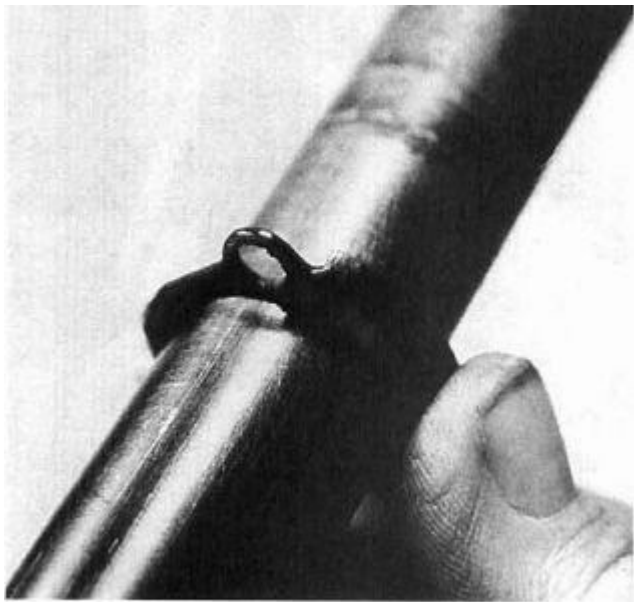
and the internal and external piston rings can be taken off by snapping them out of their grooves. However, this system can be effectively cleaned without disassembly, and is best left in place in normal takedown.

# Disassembly:

4. The piston rod and its spring can be removed from their mount at the rear of the sleeve by drifting out the rod, as shown.



**5.** Remove the forend spacer plate toward the front.

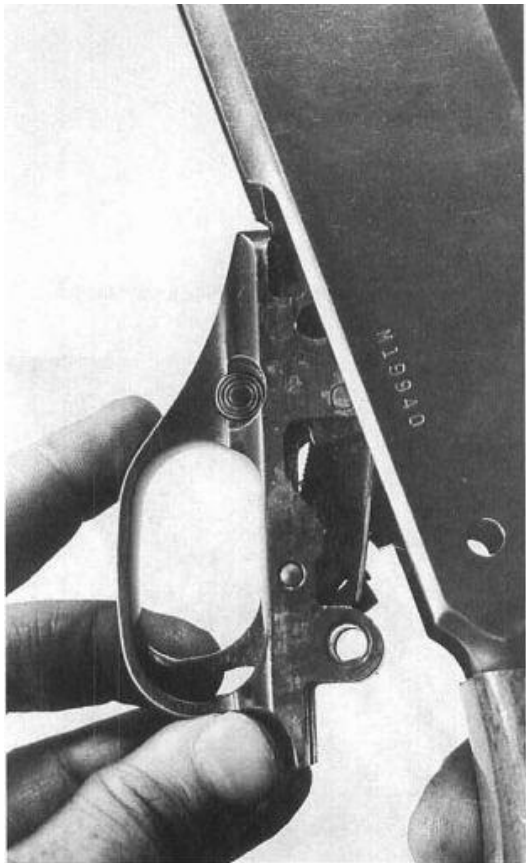






6. Insert a screwdriver at the front of the magazine tube and pry the magazine spring retainer outward, moving the

screwdriver to raise the retainer equally around its edges. Caution: The magazine spring will be released, so control it and ease it out. Remove the spring and follower toward the front. If necessary, the magazine tube can be unscrewed and removed toward the front.

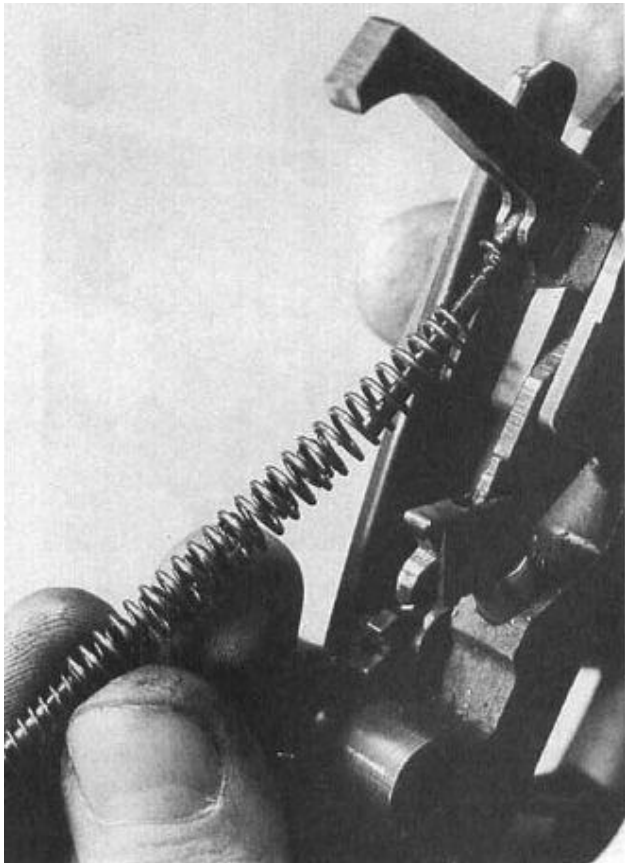


**7.** Restrain the bolt, depress the carrier latch button, and ease the bolt forward to the closed position. Push out the cross pin at the lower rear of the receiver toward either side. Tip the trigger housing downward at the rear, and remove, it toward the rear and downward.

**8.** Move the safety to the off-safe position, restrain the hammer, pull the trigger, and ease the hammer down to the fired position. Insert a small

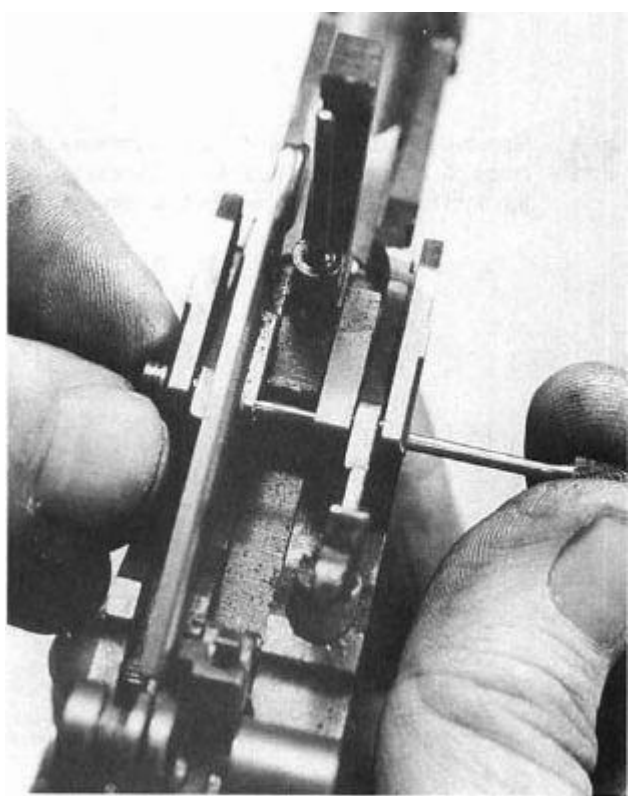
screwdriver at the rear of the hammer spring, in front of the sear, and another tool from the side, beneath the spring. Pry the spring toward the front and lift it from below, nudging it out of its notch at the front of the sear and trigger assembly. Caution: The spring is under tension, so keep it under control.



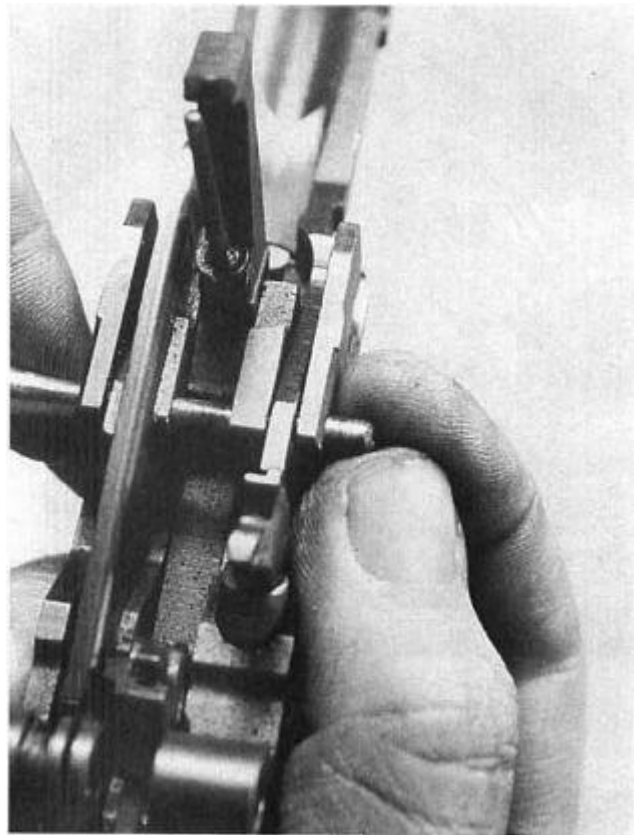


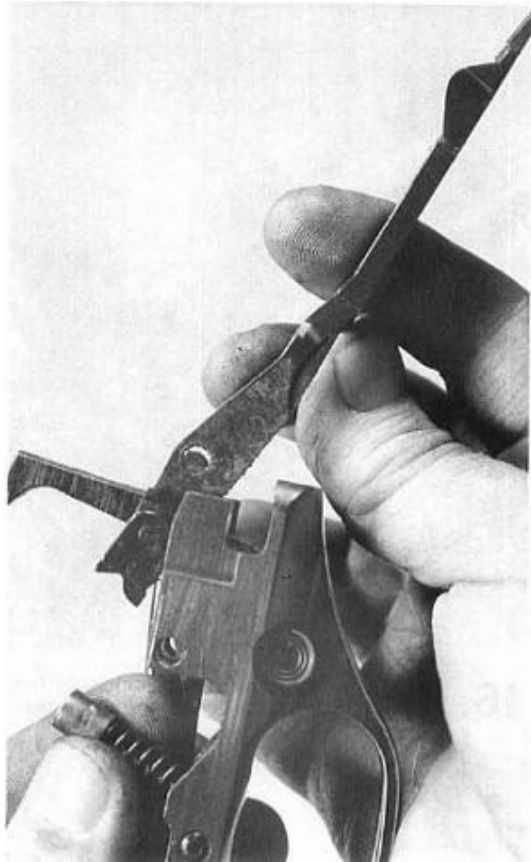
9. Swing the hammer strut upward, and remove the concentric large and small hammer springs, along with the rear spring guide.
  
10. Swing the hammer strut up out of the way, and insert a drift punch from the right, through the hole in the right carrier pivot, to push out the solid left carrier pivot.



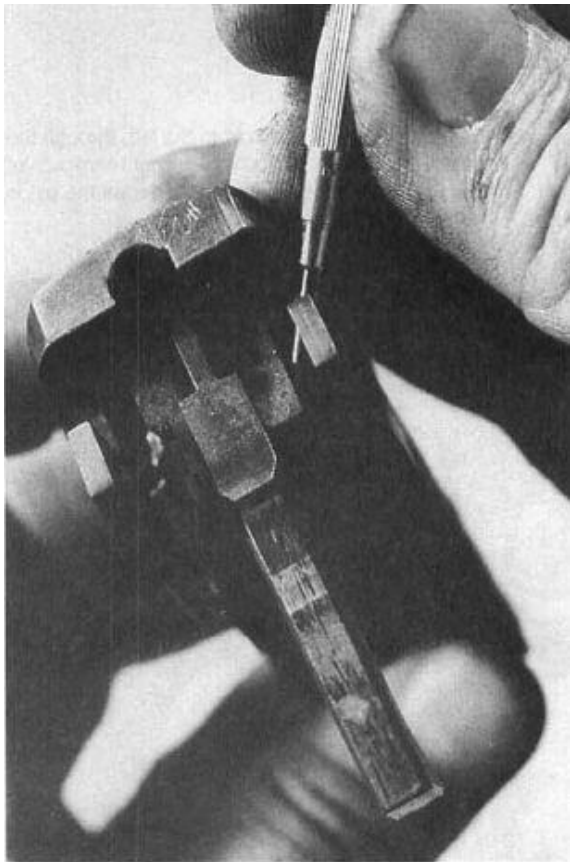


**11.** Insert a large drift punch from the left, through the hole just cleared, and push out the right carrier pivot toward the right. Restrain the carrier as the pin is removed, as it will be released.



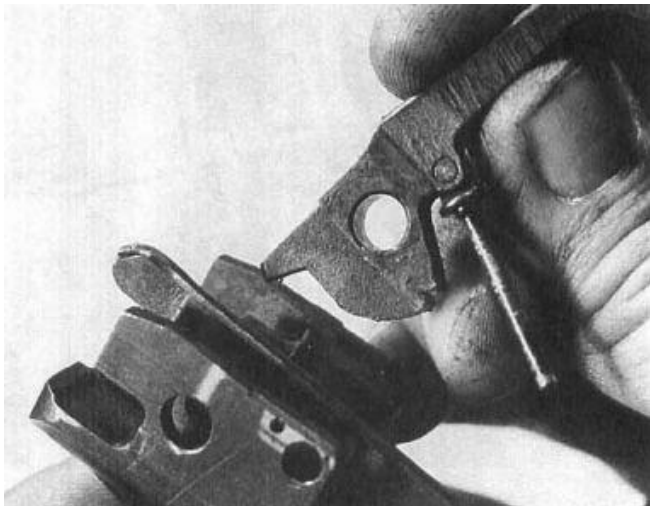


**12.** Move the rear of the carrier upward, then remove the carrier toward the front. Take out the carrier spring and plunger from their recess on the right side of the housing. The carrier dog, on the right rear wing of the carrier, is retained by a cross pin, and removal is not necessary in normal takedown. If necessary for repair, the pin must be drifted out inward, toward the left. Be sure the carrier wing is well supported.

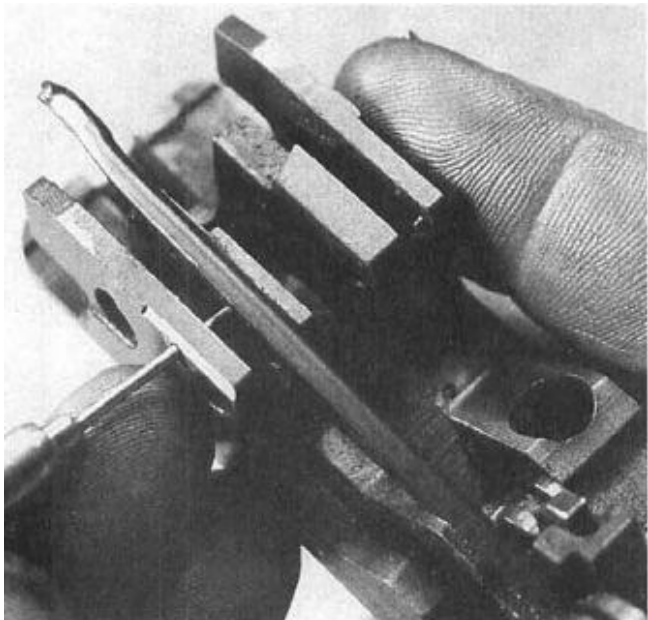


**13.** Hold the trigger to the rear to relieve sear tension on the hammer, and insert a small tool at the front of the housing to nudge the hammer pivot out toward the left. A small hooked tool made from a bent paper clip is useful for extracting the hammer pivot.

**14.** Remove the hammer upward. If necessary, the cross pin in the hammer can be drifted out toward the right to free the hammer strut for removal.







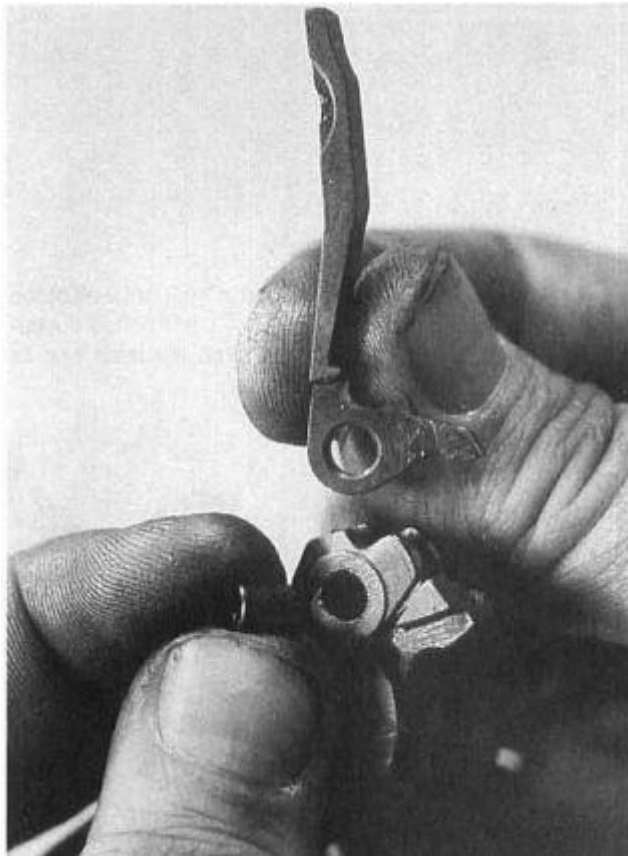
**15.** In addition to the carrier pivot, already removed, the disconnector is also retained

by a tiny limit pin, located just forward of the pivot hole. There is a small access hole to allow a drift punch to reach this pin, and it is driven inward for removal. The limit pin may be difficult to remove, and there is some hazard of bending the inner wall of the housing. If disconnecter removal is not necessary for repair, it's best to leave it in place.

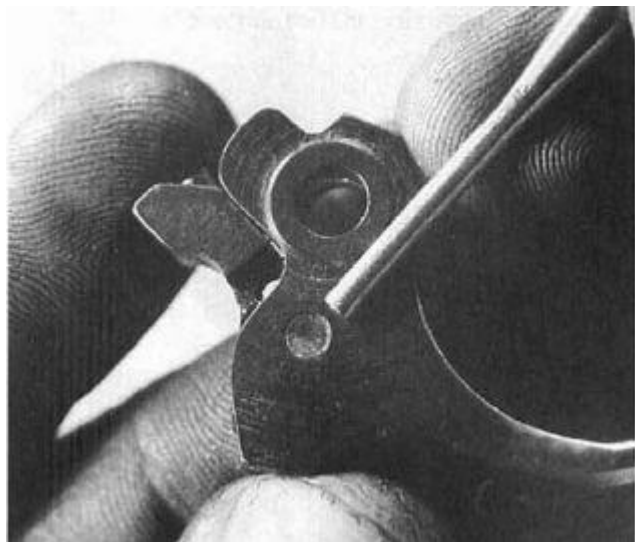


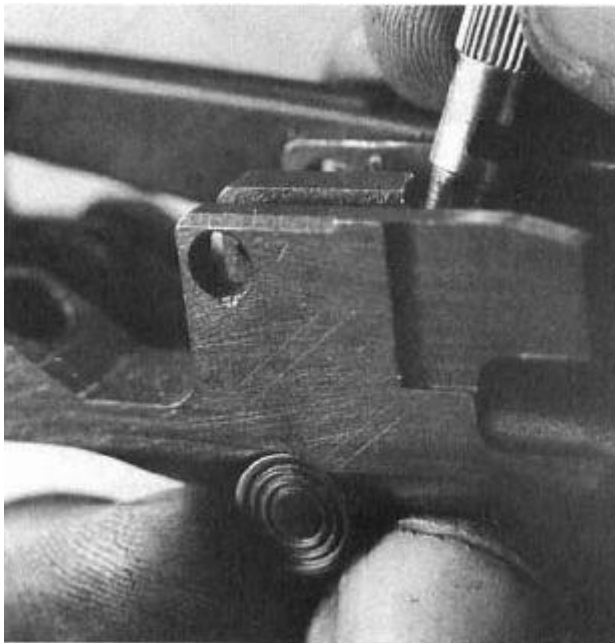
**16.** Insert a drift on the right side,

through the access hole in the sear pivot, and push out the trigger pin toward the left. Remove the trigger assembly upward.



- 17.** Push out the pivot sleeve at the top of the trigger, and remove the sear toward the front.
  
- 18.** Drifting out the cross pin at the rear of the trigger will allow removal of the disconnecter upward. Caution: When the cross pin is removed, the disconnecter plunger and spring will be released, so restrain them and ease them out. There is a small Allen screw in the top of the disconnecter, and this screw should not be disturbed.



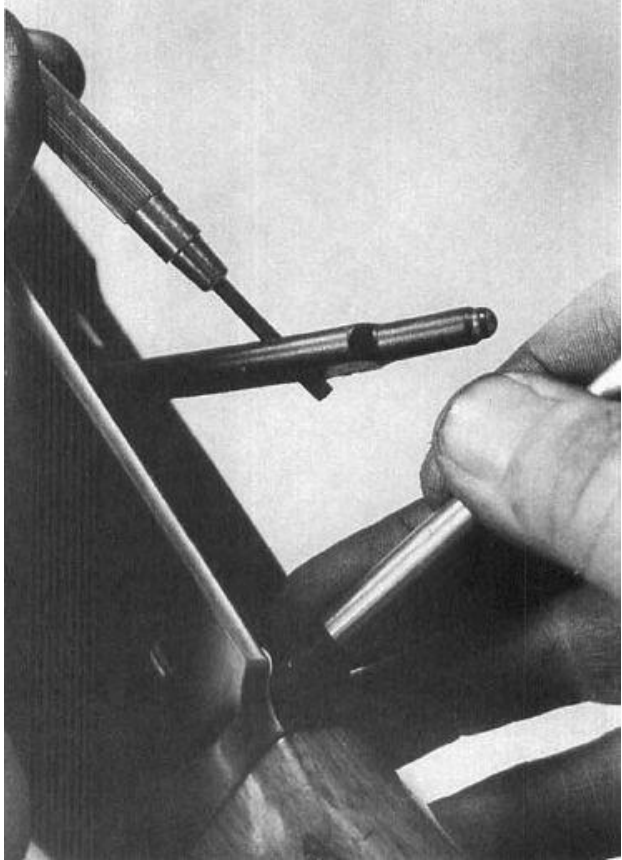


**19.** Set the safety half-way between its two positions, and insert a tool from the top to

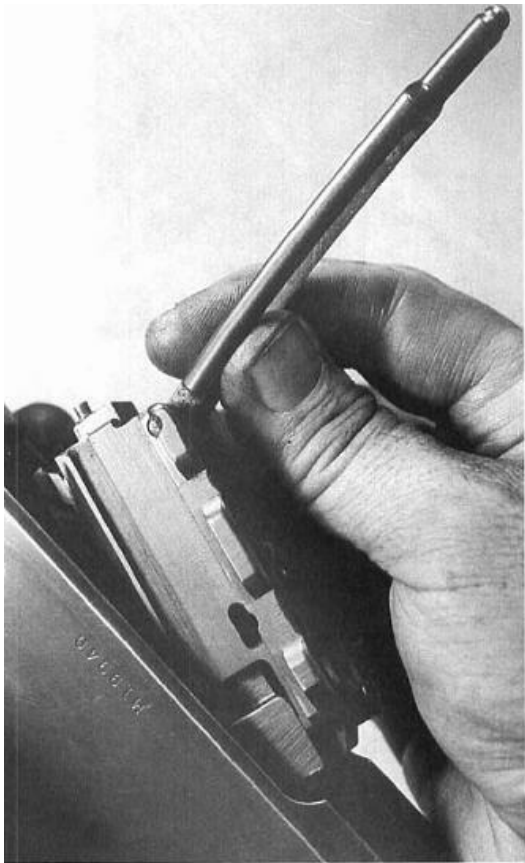


bear on the front edge of the safety at the center. Tap the tool to tilt the safety slightly, then push it out toward the right. Caution: The plunger and spring will be released as the safety clears, so restrain them and ease them out.

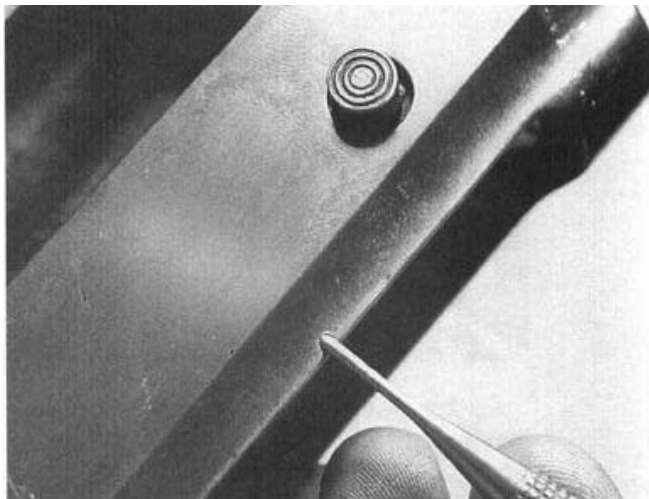
- 20.** Insert a screwdriver inside the receiver at the rear and depress the bolt spring follower, Lift the bolt slide ink bar outward.



**21.** Grasp the operating handle firmly, and pull it straight out toward the right. Move the bolt back in the receiver until its lower side lugs align with the exit cuts inside the receiver. Lift the bolt out the bottom of the receiver, depressing the firing pin at the rear to clear the bolt spring follower.



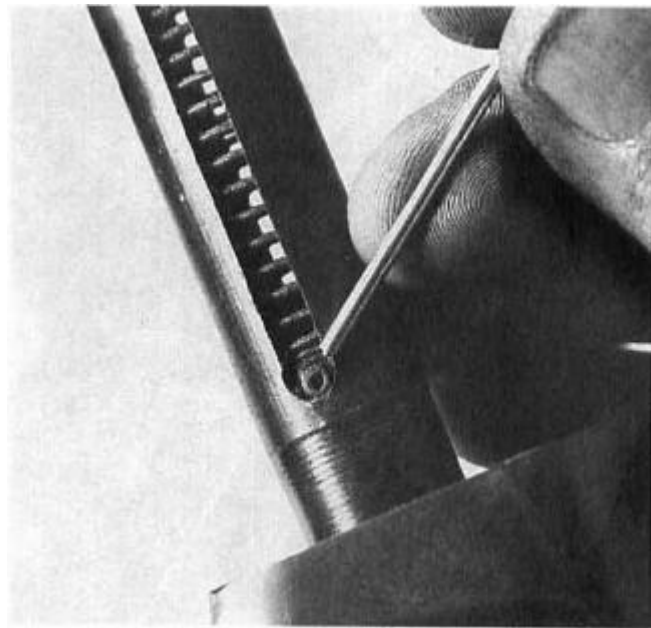
**22.** The carrier latch is retained in the right wall of the receiver by a vertical pin. The pin is drifted out upward, into the receiver, to free the latch and its spring for removal.





**23.** Remove the buttplate, and use a large screwdriver to back out the stock mounting bolt. Remove the bolt and washer, and the buttstock, toward the rear.

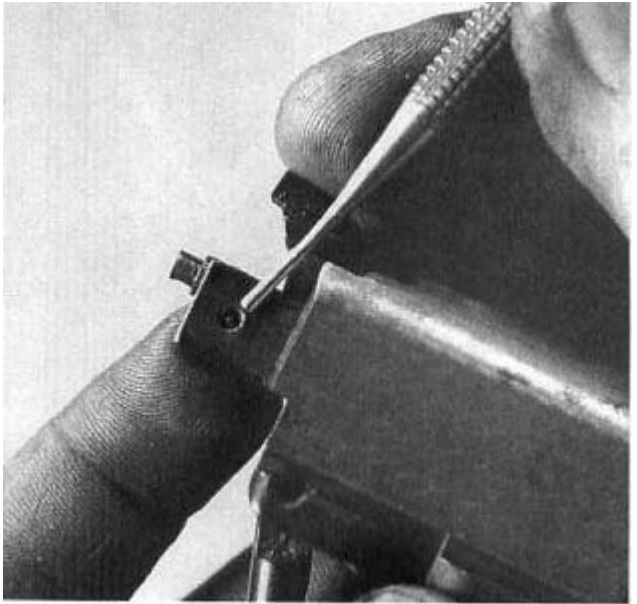
**24.** Drifting out the roll cross pin in the bolt spring follower will release the follower for removal toward the front. Caution: This is a powerful spring, so keep it under control.

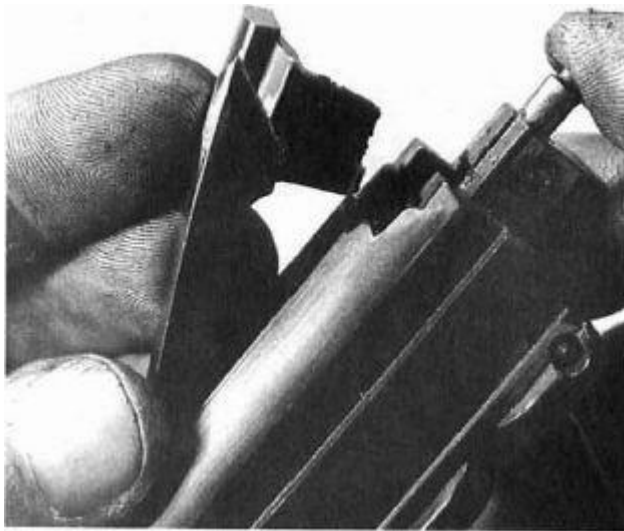


**25.** Move the bolt to the rear, in the bolt slide, to expose the firing pin retaining cross pin,



and drift out the pin toward either side.





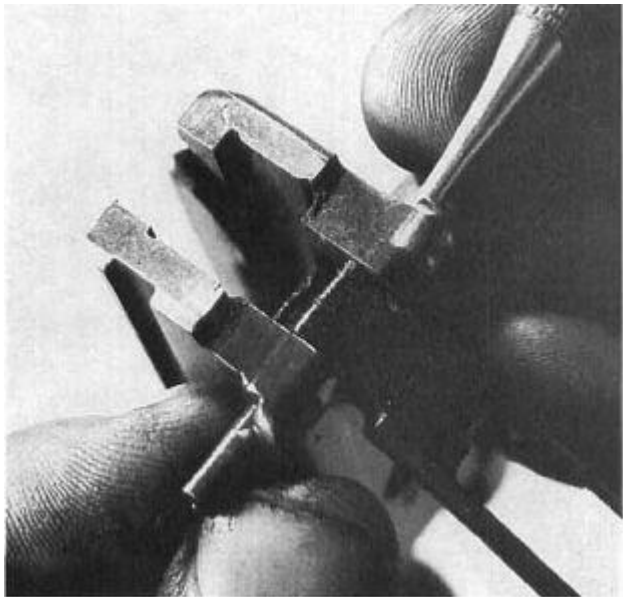
**26.** Removal of the cross pin will allow the firing pin to move toward the rear, but it is not released. Depress the firing pin toward the front, and lift

the locking block upward at the rear. Remove the locking block upward, and take out the firing pin and its spring toward the rear.

- 27.** Remove the bolt from the bolt slide toward the front.

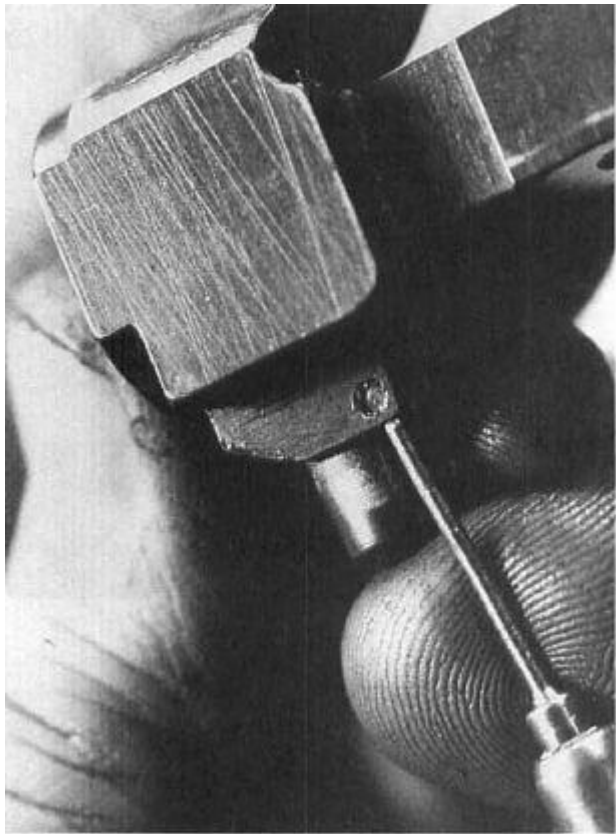


**28.** Drifting out the cross pin at the rear of the bolt slide will release the link bar for removal. The pin is easily pushed out toward the left. The operating handle retainer and its spring are held in the floor of the bolt slide by a slanted pin, accessible from the top, and this pin is driven out downward. Restrain the spring, and ease it out.

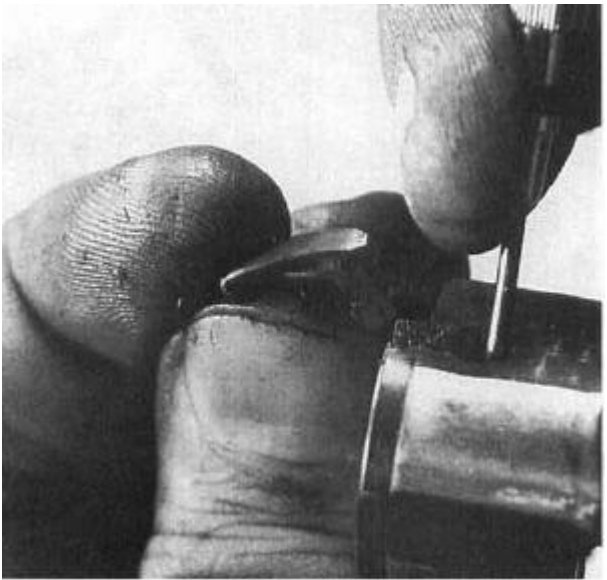


**29.** Push out the small cross pin at the lower front of the bolt, and remove the carrier pawl and its coil spring downward. The

pin is pushed out toward the right.





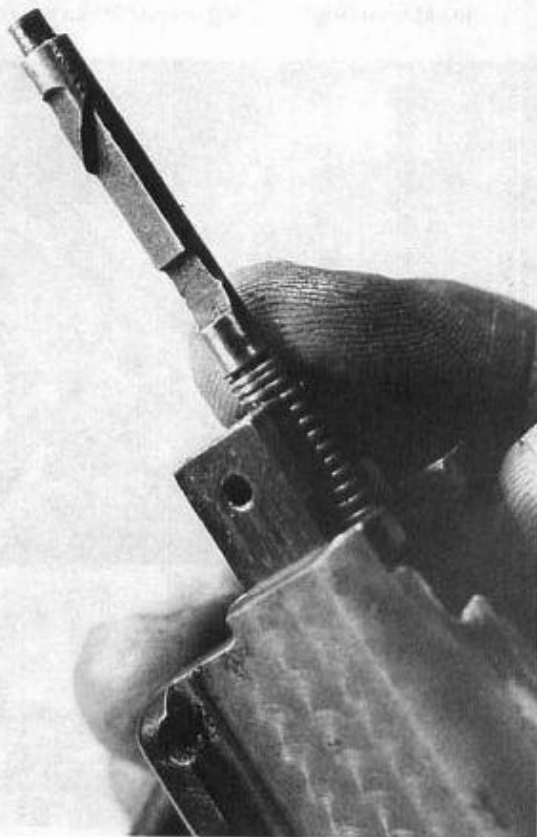


**30.** Insert a small screwdriver between the extractor and its plunger to depress the plunger toward the rear, and lift the

extractor out of its recess.  
Keep the plunger under  
control, and ease the plunger  
and spring out toward the  
front.

# Reassembly Tips:

1. When replacing the firing pin in the bolt, note that the side with the extensive relief cuts goes on the right.



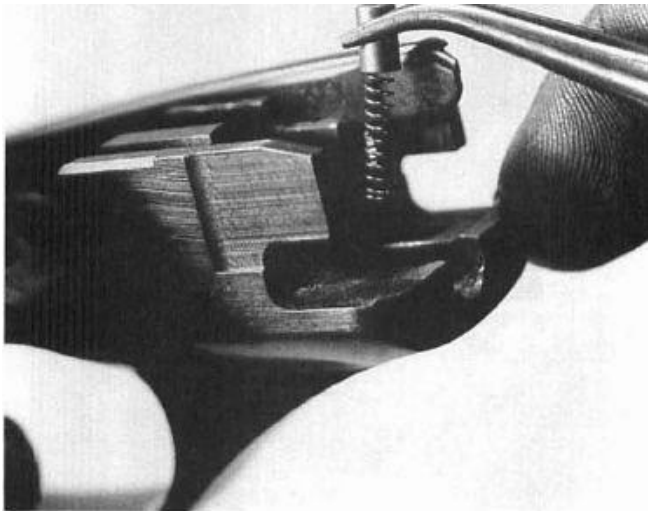
2. When replacing the locking block, hold the bolt assembly and firing pin as shown, set the front of the block into its recess at the front, rest it on the firing pin at the rear, and depress the firing pin until the locking block drops into place. Take care that the firing pin isn't turned, as the cuts must align with the tail of the locking block. Also, remember that for replacement of the firing pin retaining cross pin, the firing pin must again be depressed to align its retaining cut with the cross pin

hole.



3. The sear spring and plunger are more easily installed after the trigger and sear are in place. Tip the disconnect to the rear, and tilt the front of the sear upward, then insert the spring and plunger and tip the sear back down.





4. Note that the left carrier pivot is reduced at one end, and that end must go toward the right when the pivot is installed.



**5.** When compressing the hammer spring assembly, take care that the hollow rear guide slips onto the solid front guide (the hammer strut), and keep the springs from kinking as the unit is compressed. There is a recess at the tip of the rear guide, and a small drift punch or a pointed tool can be lodged in the recess to aid in guiding the spring assembly into position.



# **Winchester Super-X Model II**



## **Similar/Identical Pattern Guns**

The same basic assembly/disassembly steps for the Winchester Super-X Model II also apply to the following guns:

**Magnum Turkey**

**Sporting Clays**

**Camo Waterfowl**

**Data:** Winchester Super  
X2

**Origin:** United States

**Manufacturer:** U.S. Repeating  
Arms Co., New

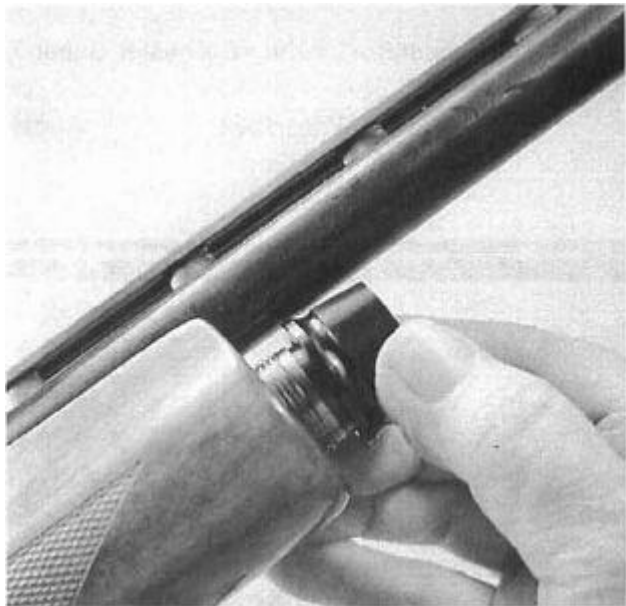
	Haven, Connecticut
<b>Gauges:</b>	<b>12 only</b>
<b>Magazine capacity:</b>	4 rounds
<b>Overall length:</b>	47 inches
<b>Barrel length:</b>	26 inches (others offered)
<b>Weight:</b>	<b>7-1/4 to 7-1/2 pounds</b>



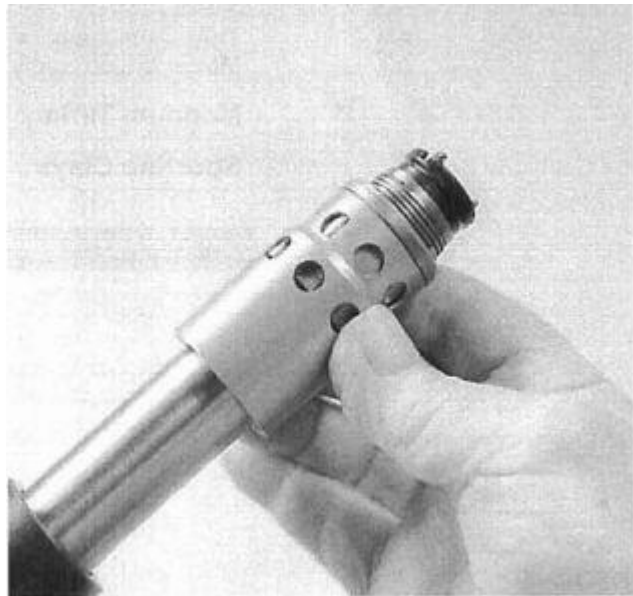
The Super X2 is an extensive redesign of the earlier Super XI, and there are important mechanical differences. The Super X2 has self-adjusting gas operation, and is offered with a stock and forend of either walnut or black synthetic material. FN in Belgium makes the gun for U.S. Repeating Arms.

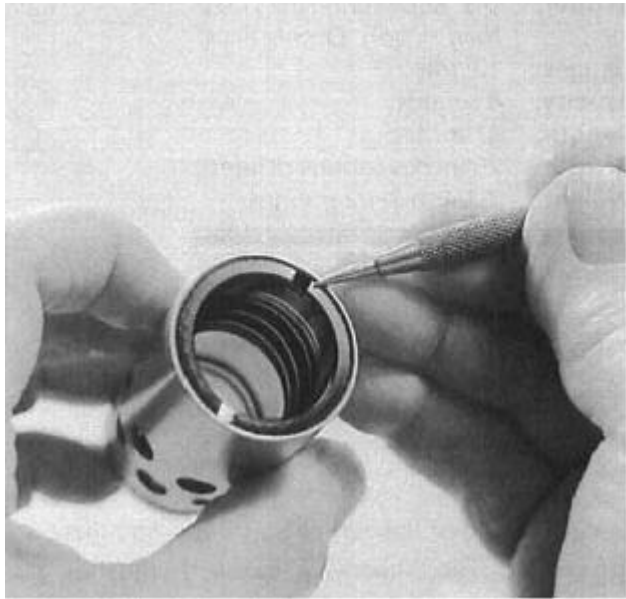
# Disassembly:

1. Pull the bolt handle to the rear, and leave the bolt in locked-open position. Unscrew the magazine cap, and take off the forearm and the barrel toward the front. The metal insert at the front of the forearm is not routinely removable.



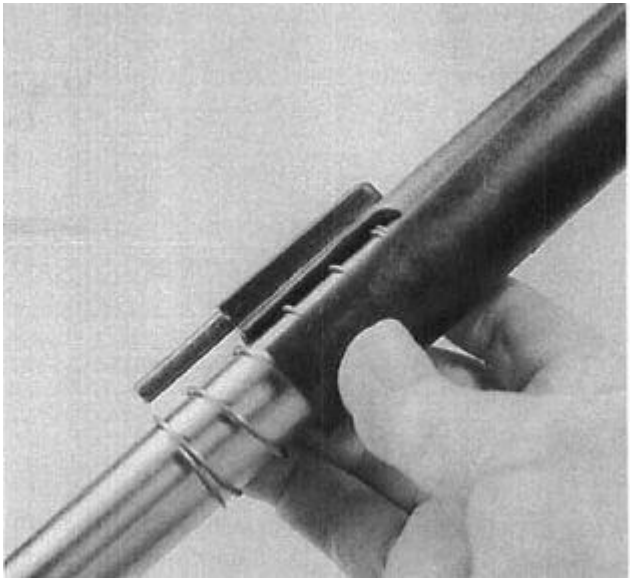
**2.** Remove the gas piston toward the front.





**3.** Using a special wrench, it is possible to remove the internal components of the gas piston. In normal take-this

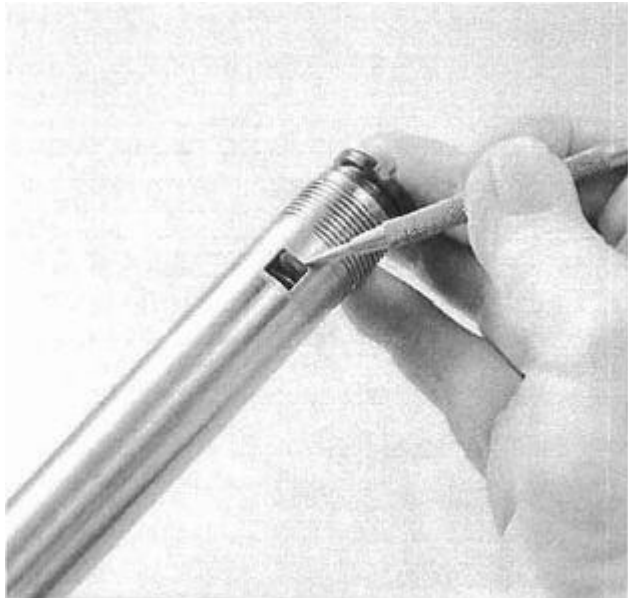
system is best left in place.



4. Remove the gas sleeve and its spring. The steel pin at the rear of the polymer sleeve is

not routinely removable.

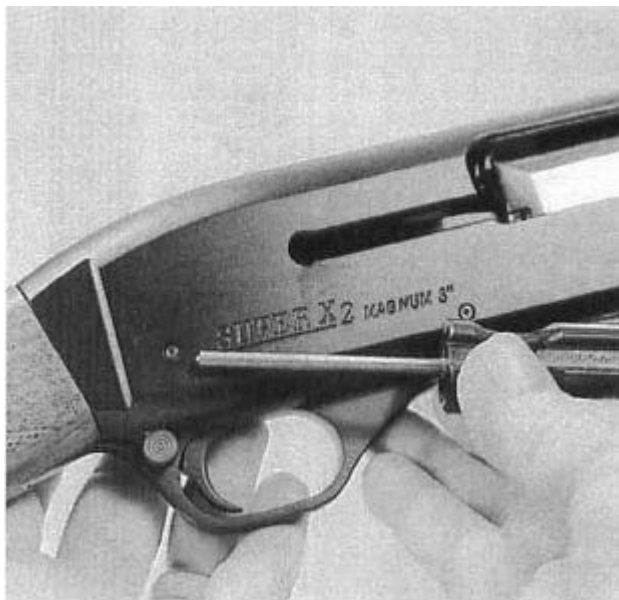
- 5.** To remove the magazine spring and follower, depress the retaining tab, and ease out the retainer. Caution: Control the retainer and spring.



6. Restrain the bolt, depress the release button, and ease the bolt forward until it stops. Put the manual safety in on-safe



position. Use a suitable tool, a roll-pin drift or the Brownells tool shown, to push out the two trigger group cross pins.



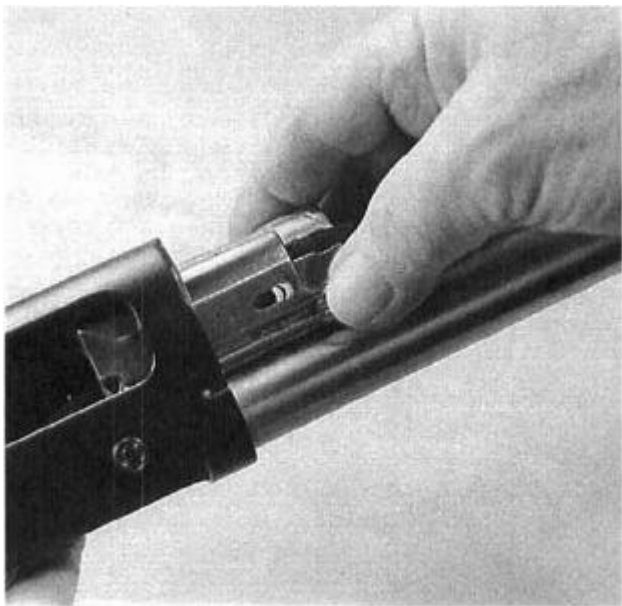


7. Remove the trigger group downward.

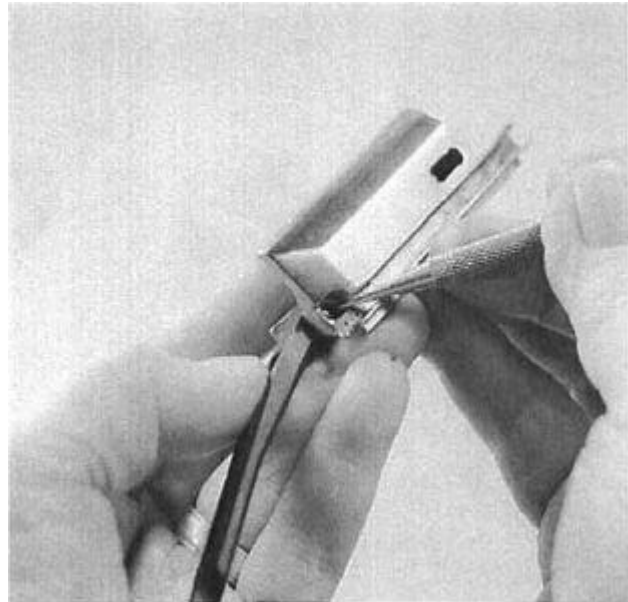


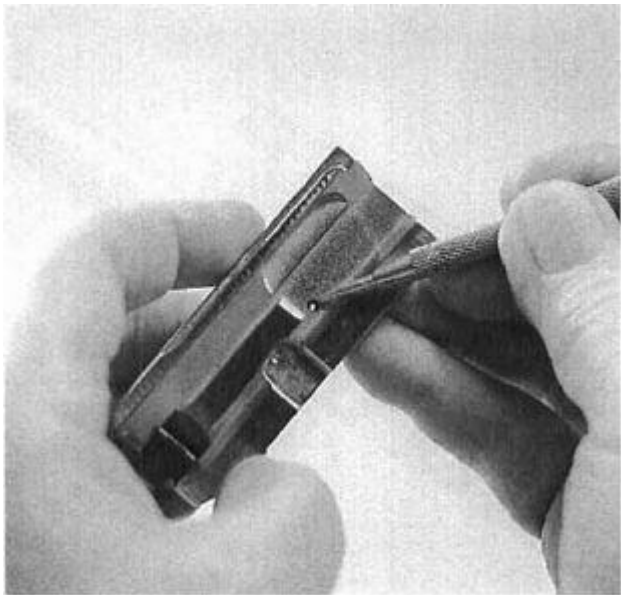
**8.** Grasp the bolt handle firmly,  
and pull it out toward the  
right.

9. Move the bolt and bolt slide forward out of the receiver. They are easily separated.



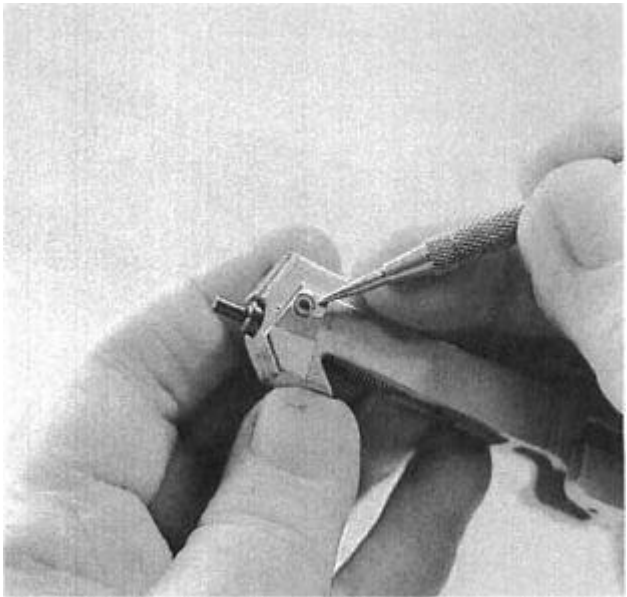
**10.** The bolt slide link, the connector to the bolt spring, is retained at the rear of the slide by a cross pin which is staked in place. It is removed only for repair.





**11.** The bolt handle detent plunger and its coil spring are retained in the slide by a vertical roll pin. Again, remove this system

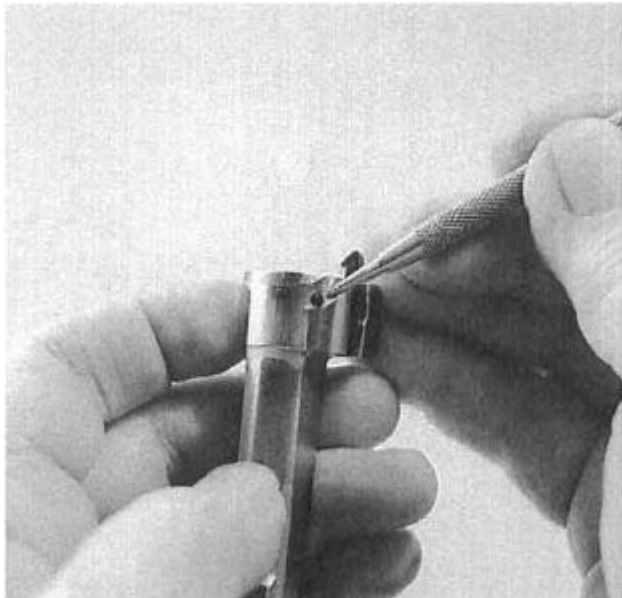
only for repair. If the pin is drifted out, cover the hole at the front of the slide to arrest the plunger and spring.





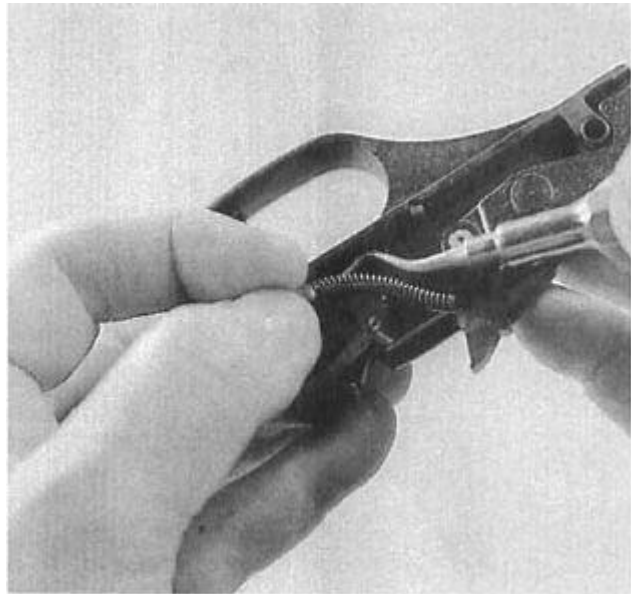
**12.** The firing pin and its return spring are retained in the bolt by a cross pin at the rear. If this pin is removed for repair, restrain the firing pin as the drift is taken out.

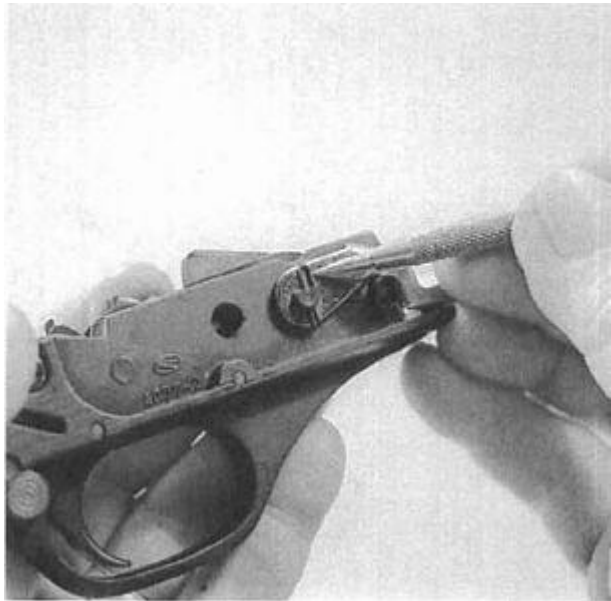
**13.** The extractor is pivoted and retained by a vertical pin that is drifted out upward. The pin is staked at the top, and removal should be only (or repair. Restrain the extractor, ease it off, and take out its angled plunger and spring.



**14.** Before disassembly of the trigger group, be sure the manual safety is in on-safe position, to insure against

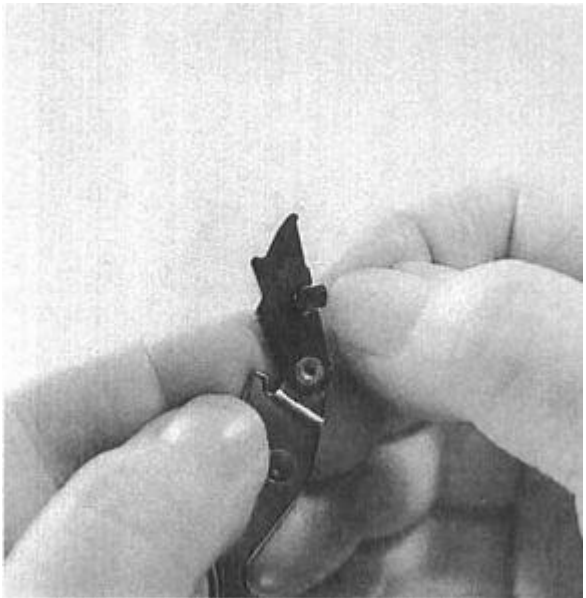
inadvertent hammer fall. Use a small sharp tool to carefully lift the rear base of the carrier spring out of its recess, and remove the carrier spring assembly. Caution: Control the parts during removal.





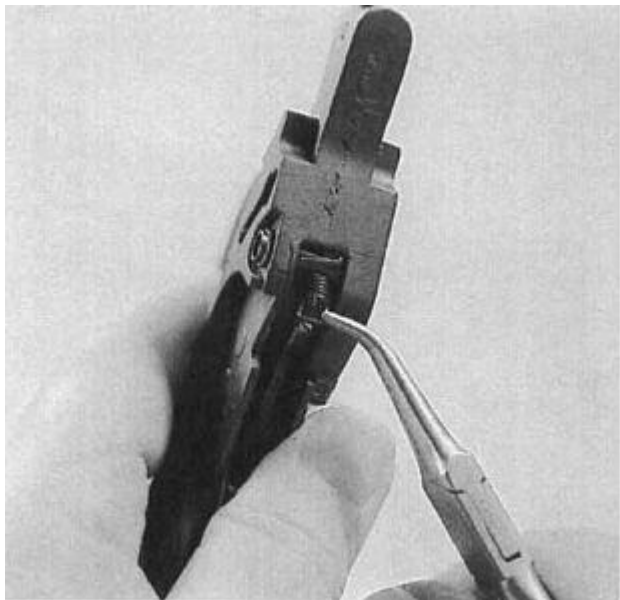
- 15.** Remove the spring clip in the right end of the carrier pivot, sliding it out upward. Caution: Take care that this small clip

does not get away and become lost. Move the carrier pivot out toward the left, and remove the carrier.



**16.** If necessary for repair, the spring base in the carrier dog can be turned to the position shown, and can be taken out to either side. The carrier dog is riveted in place on the carrier, and it is not routinely removed.

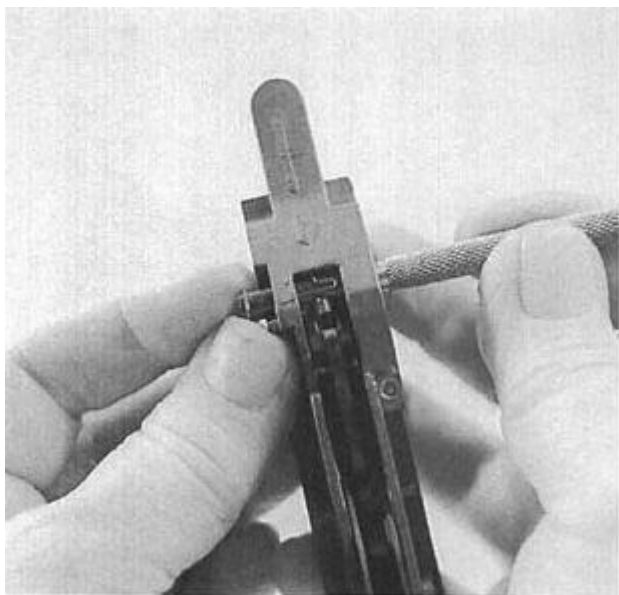
**17.** Move the manual safety to off-safe, restrain the hammer, pull the trigger, and ease the hammer forward to fired position. Unhook the trigger and disconnect spring from its notch in the disconnect.

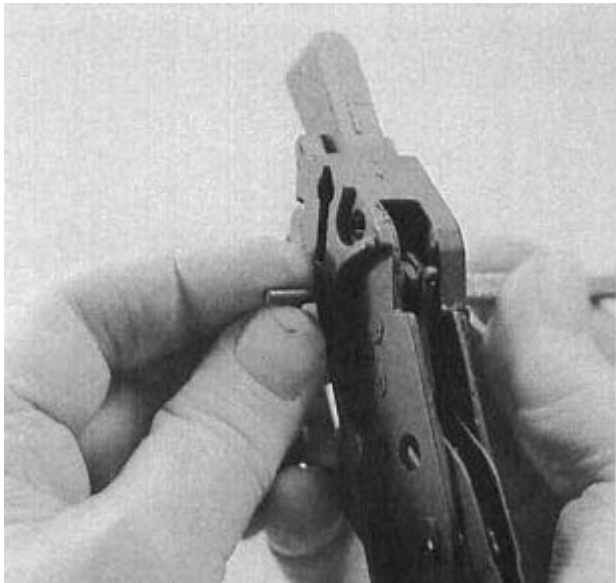


**18.** Push out the rear group cross-pin sleeve. The trigger/disconnector spring

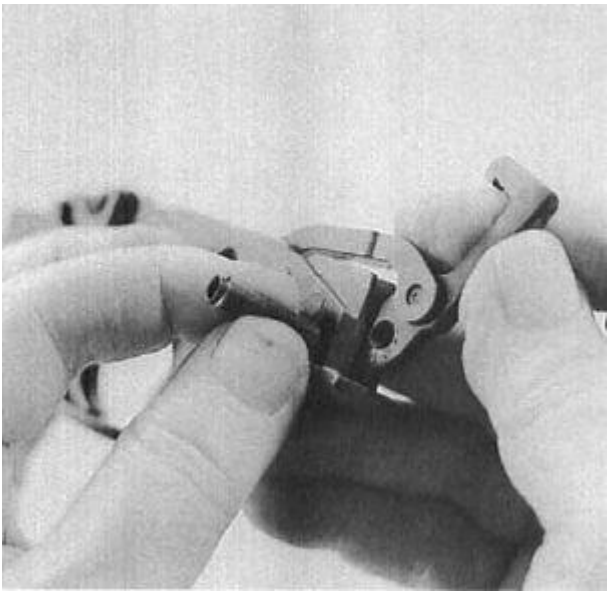


will be released for removal.





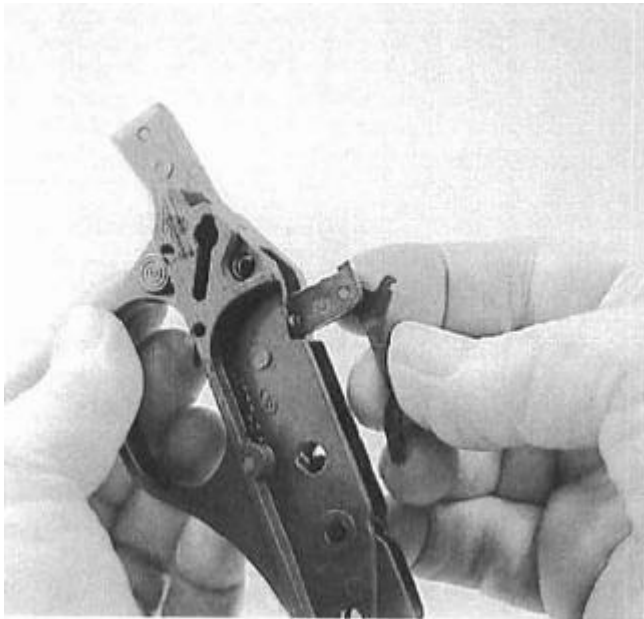
- 19.** Push out the trigger cross pin.  
The trigger is not removed at  
this point.



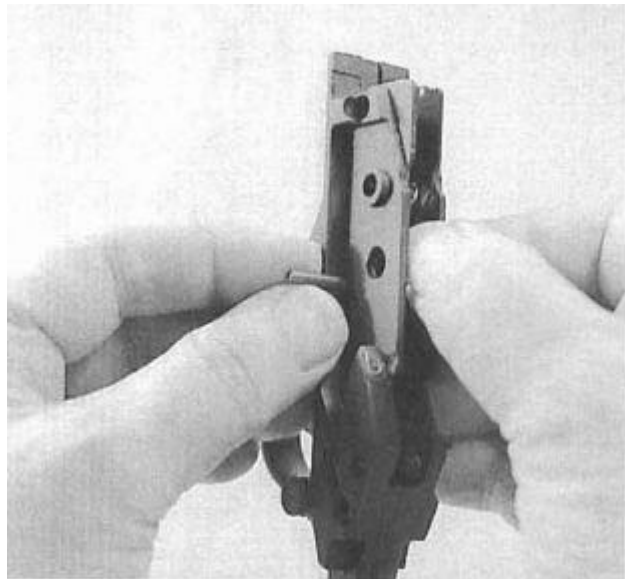
**20.** Push out the front trigger group cross-pin sleeve, which is also the hammer pivot. Remove the hammer toward

the front. The hammer spring strut must be lifted at the rear to clear.

- 21.** Remove the trigger and attached disconnecter upward. The cross pin is easily removed to separate the parts.

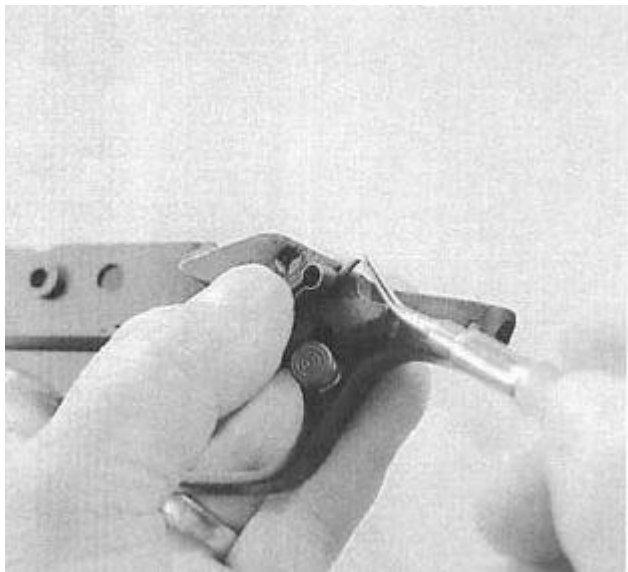


**22.** Restrain the sear, and push out the sear pin.





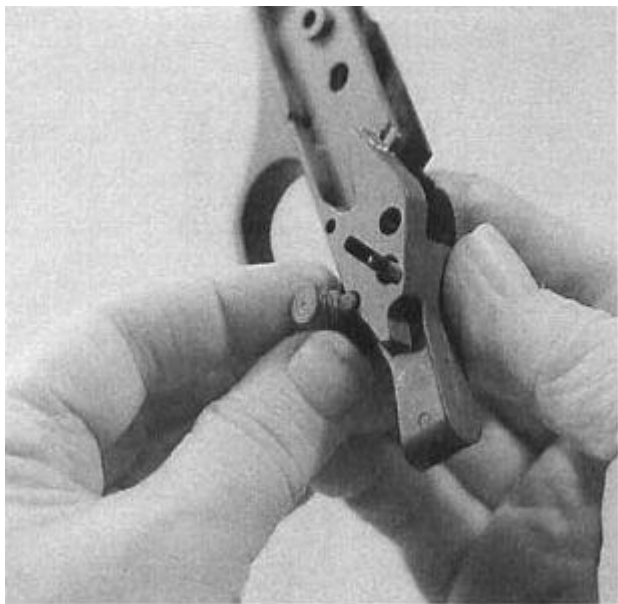
**23.** Remove the sear and its attached torsion spring, forward and upward. The spring is easily detached.



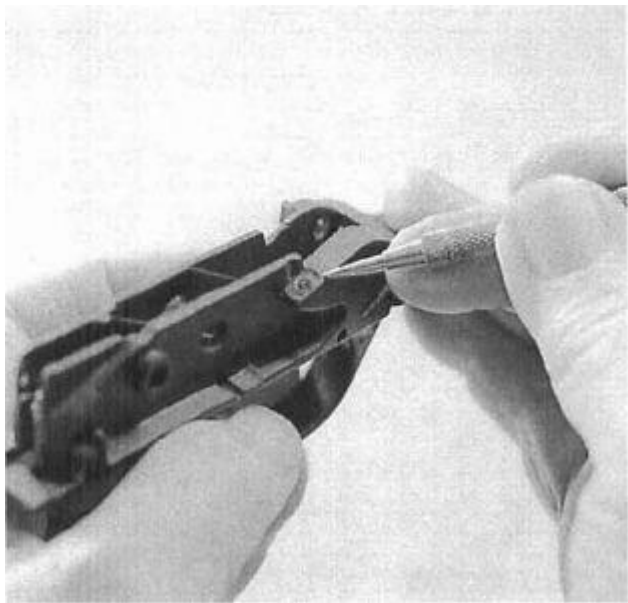
**24.** Carefully pry out the safety detent spring.

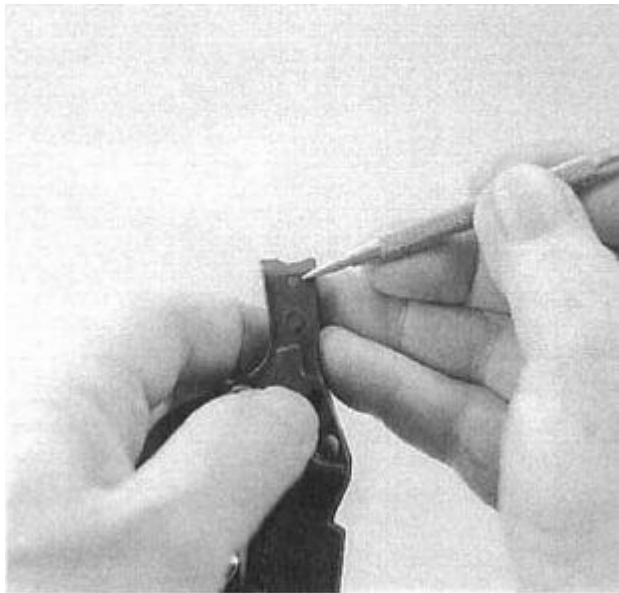


**25.** Remove the safety. After the safety is taken out, the detent plunger is easily removed.



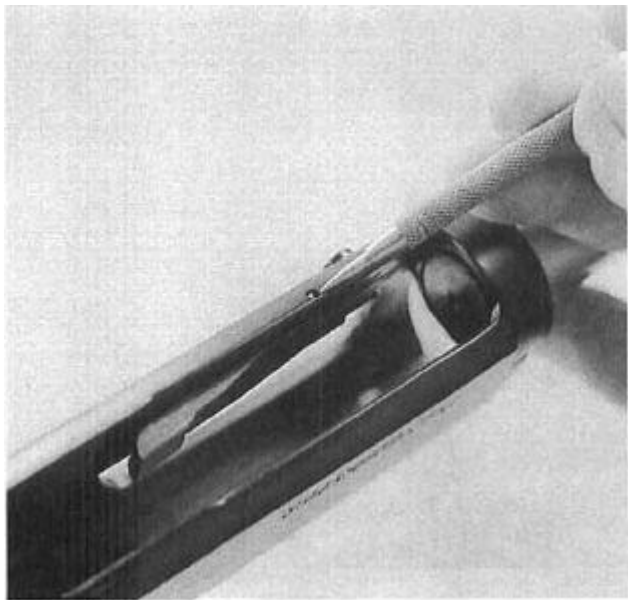
**26.** If necessary for repair, the carrier buffer pad can be pried out of its recess.





**27.** To remove the hammer spring and its plunger, insert a tool at the rear to slightly compress the spring, and drift out the

retaining cross pin. Caution:  
Control the spring.

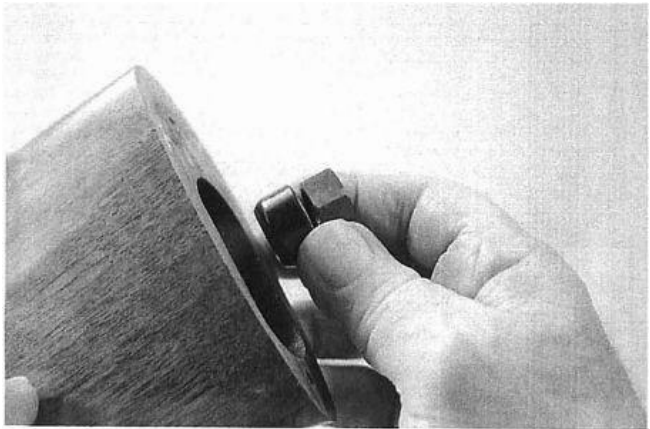


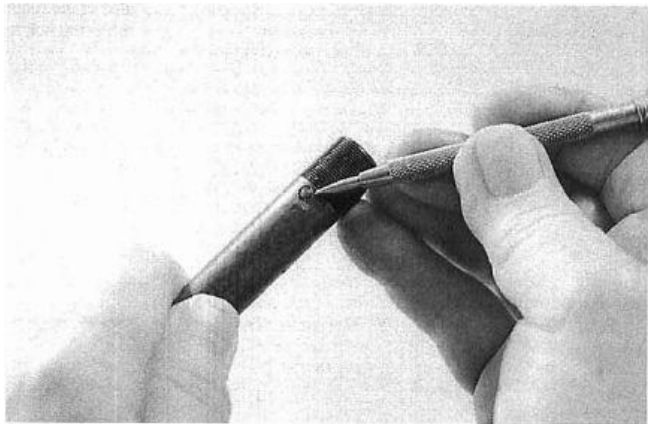
**28.** The bolt latch assembly, which

also contains the shell stop, is pivoted and retained in the receiver by a vertical pin. The pin is secured by a small spring clip in a recess inside the receiver. The clip is pushed off rearward, and the pin is pushed out upward. If removal is not necessary for repair, this system is best left in place.

**29.** Removal of the recoil pad will give access to a 3/4-inch nut and spacer that retain the buttstock. There is also an oblong steel plate in the stock

recess. Remove the stock  
toward the rear.



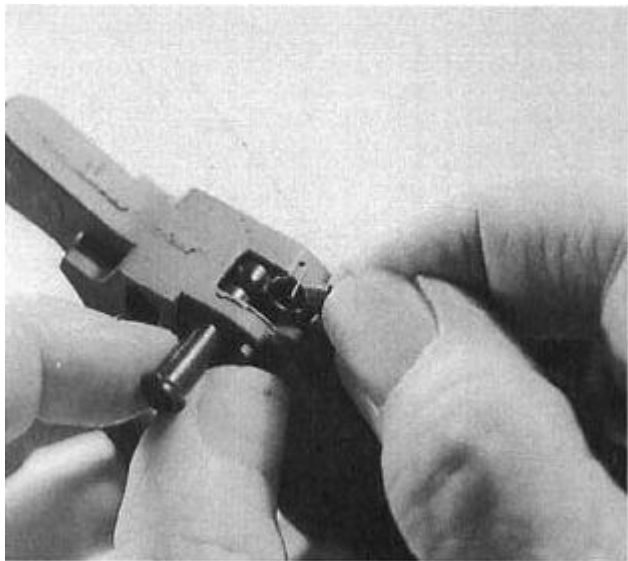


- 30.** To remove the action spring and follower, insert a tool at the rear to slightly compress the retainer, and push out the cross pin. Caution: Control the retainer and spring.

# Reassembly Tips:

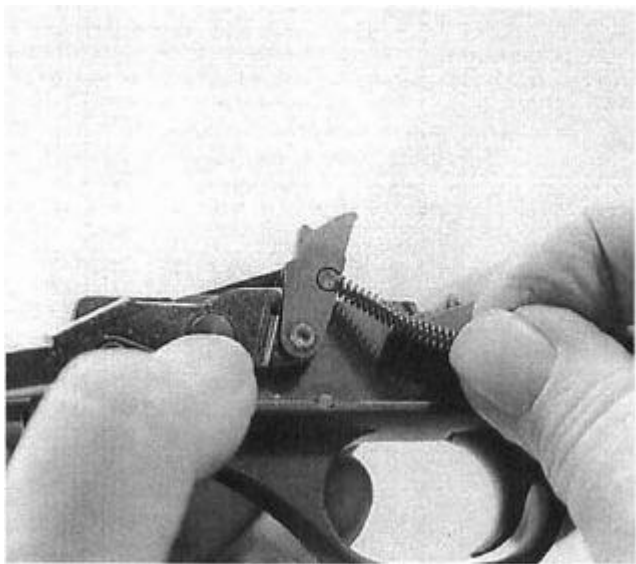
1. When installing the combination trigger and disconnect spring, note that it goes back on the sleeve in the orientation shown.





2. When installing the carrier spring assembly, remember that the upper tip of the spring guide rod must enter the small hole in the spring base on the

carrier dog.



As the bolt and bolt slide are moved back into the receiver, be sure the rear

tip of the bolt slide link engages the cupped end of the recoil spring follower, and keep it in engagement while the bolt handle is reinserted.

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## About the Author



Guns have always been a part of J.B. Wood's life; he began working as a gunsmith over 50 years ago. Fortunately, Wood has been able to combine his mechanical talents with writing about them, which he's been doing since 1962. He has had more than 1,000 articles published in *Gun Digest*, *Guns Illustrated* and in most of the monthly gun magazines. In 1977-1978 he authored a two-book series for DBI Books, *Troubleshooting Your Handgun* and *Troubleshooting Your Rifle and Shotgun*. From 1979 to 1981, Wood wrote and photographed the original six-part *Firearms Assembly/Disassembly* series, a monumental task that turned out to be the best reference ever printed on the subject. Currently, he is revising the series to include recently introduced guns as well as guns for which detailed takedown and reassembly instructions may no longer exist.

Because he is so well informed on a wide range of firearms and firearms types, Wood is considered an international authority. He is a highly regarded firearms consultant, and has done original mechanical design as well as redesign-work for both domestic and foreign arms makers. Currently he is a writer and firearms consultant, living in rural Kentucky.

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